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THE LANDSCAPE CONTEXT OF PLANNING FOR RECREATION
"The Psycho-Physiological Approach to the Design of Open Spaces"

Thesis submitted for the degree of PhD. in Architecture

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بسم الله الرحمن الرحيم

إلى أعز من أحب ...

وأغلى من فقدت ...

إلى أبي

السند ، والحب ، والعطاء

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INTRODUCTION

INTRODUCTION

The demand of modern living with social and economic tensions has created a society characterised by change. This constant change in most aspects of daily life has encouraged an increasing number of people to turn to recreation interests as a means of gaining inner satisfaction, self expression and personal fulfilment. Recreation has become an important component of the urban planning and design for societies.

The research is devoted to the study of recreation as a vital component of life. Its importance stems from its maintenance of the physical and mental health for both society and individuals. The lack of satisfactory planning and design for recreation in a society would accordingly lead to slow disintegration.

0.1 Background:

During the last century, planning and design for recreation has been the scope of physical design in the absence of its behavioural context. Such scope was more related to the physical environmental aspects of recreation. The emphasis on the physical study orientation of the problem has hindered the fulfilment of participants' needs.

As a result, a different line of research has emerged. This involves planners attempting to design spaces for recreation through focusing on participated activities, which in fact is a reflection to the environmental physical line of research. This accomplished many advantages such as the ease of identifying; who participates in what activity, when, where and for how long.

However, it suffers the disadvantages of the absence of considering other relevant questions. For example, why are the participants engaged in the activity? What satisfaction or rewards are expected to be received from their participation in the activity? What motivations have driven participants to engage in the activity? How can the quality of the experience be enhanced? In summary, the activity line of research frequently

assumes that supply of recreation facilities defines preferences, but does not question whether if latent preferences are being met. Accordingly, this line of research is considered rather incomplete.

The previous two lines of research, accordingly have paved the way to the emergence of a third line of research, which is the behavioural one. Designing recreation, behaviourally, is more concerned with the psycho-physiological recreation experience. The behavioural science, being concerned with psychology, sociology and other related disciplines, in addition to physiology have promoted the acceptance of humanistic goals as an objective of planning for recreation.

0.2 Problem definition:

It has been concluded, from the problem's background, that the previous three lines of research together should be taken in consideration when designing for recreation. Both the activity and environmental lines are literary known to constitute the descriptive approach. On the other hand the behaviour research which is known as the explanatory approach attempts to reach beyond the descriptive one, addressing the question of 'why'. The holistic concept of recreation, hence, should embrace the three previous research lines. This has lead to the importance of designing for recreation in the context of approaching the problem behaviourally (explanatory approach) using the activity and physical environmental approaches (descriptive approach) as tools for design. This will require formulating an integrative frame work, covering both approaches.

The general problem is, therefore, symbolised by the lack of an integrative frame-work that should help in the understanding and evaluation of spatial recreational behaviour particularly in open spaces.

0.3 Aim of the Study:

The research has two objectives to achieve. First, the formulation of an integrative framework for designing open spaces for recreation. The induced framework should facilitate for the understanding and evaluation of particular design cases, so that its integrative capability are fully utilised. This frame work will provide landscape designers, particularly for open spaces for recreation, with design considerations.

Second, the examination of the deduced integrative framework in its application on a selected sample[1] in "Cairo", should further the scope and value of the theoretically

[1] It is to be selected with reference to the socio-cultural characteristics of participants, interviewers and respondents, as well as the locality and its particular socio-physical environment.

concluded design consideration and provide the particular design guide lines for the particular sample of examination.

0.4 Research Organisation:

In order to achieve the aim of the research, it is organised into three main parts; postulations, recreation paradigm and application and analysis. These parts embody a number of ten chapters organised in the following sequence.

FIRST PART: POSTULATIONS

The first part of the research represents a postulation for the diverse research approaches. It aims at finding out the constituent components, for the involved particular area of research, that could pin point those factors that facilitate and promote integration between the descriptive and explanatory determinants.

Chapter One: Recreation Behaviour

The first chapter describes the importance of viewing recreation as a form of behaviour. It highlights the importance of the diversity between societies in most aspects and accordingly in design for recreation. The chapter deals with those components affecting and forming any society; culture, environment and behaviour. A general view of culture is illustrated as well as a description of the effect of the environment reflected in its forms. Finally human behaviour will be addressed through the theories of motivations and needs. Recreation in its behavioural context is accordingly concluded.

Chapter two: Characteristics of Recreation

The second chapter represents the general definition of recreation and leisure. Difference between both is then concluded. The definition of the used recreation terminology is consequently deduced. Examination of theories involved in the field of recreation is undertaken. This will help in identifying the selected research approach.

In summary, the second chapter will end by deducing the determinants affecting and forming recreation behaviour; participants' socio-cultural characteristics, the socio-physical environment, the participated activities and the psycho-physiological reasons of participation. These determinants cover both the descriptive and explanatory approaches. The inter-relation between the identified determinants will be explored. This is then represented in the form of a "paradigm" for recreation that reflects its nature as an umbrella shading the constituent disciplines.

SECOND PART: RECREATION PARADIGM

The second part of the research will focus on the recreational paradigm concluded from the previous part. This part continues to explore the determinants components which are referred to as factors. The second part will demonstrate the factors forming and affecting the determinants. It aims at obtaining an integrative frame work for the spatial recreation behaviour in open spaces. Moreover, this part will theoretically identify those factors affecting Cairenes' recreation experience. The part is subdivided into four chapters each of which represent the detail exploration of each determinant.

Chapter Three: Participants Socio-Cultural Characteristics

Humans represent the first determinant of the recreation paradigm. They represent the corner stone of the society. Their socio-cultural characteristics, as a broad focus will be examined. Accordingly, identification of the socio-cultural variables of human life, that affect recreation will be explored. The variables/factors forming the socio-cultural characteristics of participants represented by; life-cycles stages, social class differences, life-style, family and differences in sex will be identified in the context of recreation. A focus on Egyptians' attitude and beliefs towards recreation will be first pointed out. An explanation of what is known as "Egyptianity" will be revealed through illustrating the general Egyptians' personal characteristics. Egyptians' perception and attitudes towards recreation will be then deduced.

Chapter Four: The Psycho-Physiology of Out door Recreation

Chapter four deals with the psycho-physiological determinant that drive humans to participate in outdoor recreation. Through the chapter the drivers/factors will be classified as human needs, their motivations and the satisfaction expected from the recreation experience. The differences in nature between the three factors will be clarified. Moreover, an investigation of the theories and research dealing with the determinant will be carried out. The third chapter ends by selecting a method for quantifying the psycho-physiological determinant for recreation participation; Driver's pool. The method will consequently be modified to be suitable for the selected society "Cairo". Such method will be used later through the research with relation to the Egyptian context.

Chapter Five: The Environment Socio-Physical Characteristics

Chapter five will discuss the socio-physical dimension of the environment. The social environment will characterise the group experience of recreation, while the physical will represent the topographic and climatic aspects of the environment. The interaction between both forms of the environment will be studied. A hierarchical approach to the analysis of open spaces, physically, will be identified in terms of; zones, areas and settings. Types of landscape tools and ways of arrangement will be also

examined with relation to the socio-physical environment. This will allow for the understanding/evaluating of the quality of environmental setting with regards to the landscape tools.

Chapter Six: Outdoor Recreation Activities

The activity approach represents the fourth and final determinant in the recreation paradigm. Various researches dealing with the determinant will be first promoted. Through which the classification of recreation activities will be determined as; categories, forms, patterns mix and main and secondary activities. Time as a factor affecting activity's participation will be also considered. The chapter will finally select the suitable method relating the three descriptive determinants; participants' socio-cultural characteristics, the socio-physical environment and the participated activities, through behaviour setting survey.

The selected methods; Driver's pool and behaviour setting theory, for the analysis and quantification of the factors forming the paradigm determinants will be applied to a selected case study in "Cairo". This aims to examine the effectiveness of utilising the deduced quantitative tools with reference to the paradigms' determinants in understanding evaluating the recreation spatial behaviour in open spaces.

THIRD PART: APPLICATION AND ANALYSIS

The capability of the deduced paradigm in integrating both approaches (descriptive and explanatory), is to be induced in this part. This will be attained through the application of the two modified methods for analysis and quantification. The selected case study will then be examined, which should lead to the deduction of an integrative design frame work, that will in turn promote considerations for the design of open spaces for recreation.

Chapter Seven: Methodological Approach.

This chapter addresses the methods used in data collection and data analysis. Two methods will be applied. First, the "on site" method as expressed by the observation of behaviour setting survey. Such survey will represent the method of relating the activity's determinant to the other descriptive determinants of the paradigm. Second, the "off site" method as expressed by the modified Driver's pool questionnaire, will mainly quantify the psycho-physiological determinants of participants. Both methods will be applied through the following two chapters.

Chapter Eight: Behaviour Setting Application to Case Study

This chapter represents the application of the "on-site" method to the case study part of the research. Three case studies were selected, where a set of descriptive factors is to be concluded. The K 21 scale of the behaviour setting theory will be used to identify the individual setting in each case study. The observation will take place in each setting with the aim of exploring the three descriptive determinants of the recreation paradigm; participants' socio-cultural characteristics, the socio-physical environment and the participated activities. Moreover, the behaviour setting synomorphy will be studied through the observation and analysis of landscape tools and equipment with regards to the participated activity categories as existed in each setting.

Chapter Nine: Questionnaire Analysis and Findings

The "off site" method expressed in the analysis of the questionnaire is to take place through this chapter. It aims at quantifying the psycho-physiological preferences of Cairenes in their participation of the outdoor activities. Through applying the factor analytic technique to the modified Driver's pool of questions, a set of principals' component dimension will be generated. Moreover, applying the same process of data reduction using factor analysis technique to the motivation questions, the motivations that drive the selected examined sample of Cairenes to participate in recreation activities will be deduced, with regard to Maslow's hierarchy of needs. In addition, selected sample's preference for outdoor activities and time of participation will be identified. The concluded indicators will be related to their socio-cultural characteristics through applying the t-test and the table technique in the systat program to capture differences of participation within society.

Chapter Ten: Conclusion

The final chapter will provide an overview of the study process and the synthesis deduced. Augmentations geared from the research will formulate the design frame work which will promote integration between the explanatory and descriptive approach; that should lead to a better understanding and in turn enhanced performance of landscape design for spatial recreation behaviour in open spaces. The applicability of the quantification tools of the paradigm's determinants as examined in a case study of Cairenes selected sample should provide the particular design guide lines which will help in bridging the gap for better understanding and evaluating for the landscape design of open spaces.

0.5 Diagrammatic Organisation of the Research:

Finally, charts (0.1) and (0.2) illustrate the methodological procedures undertaken in the research, which were previously discussed.

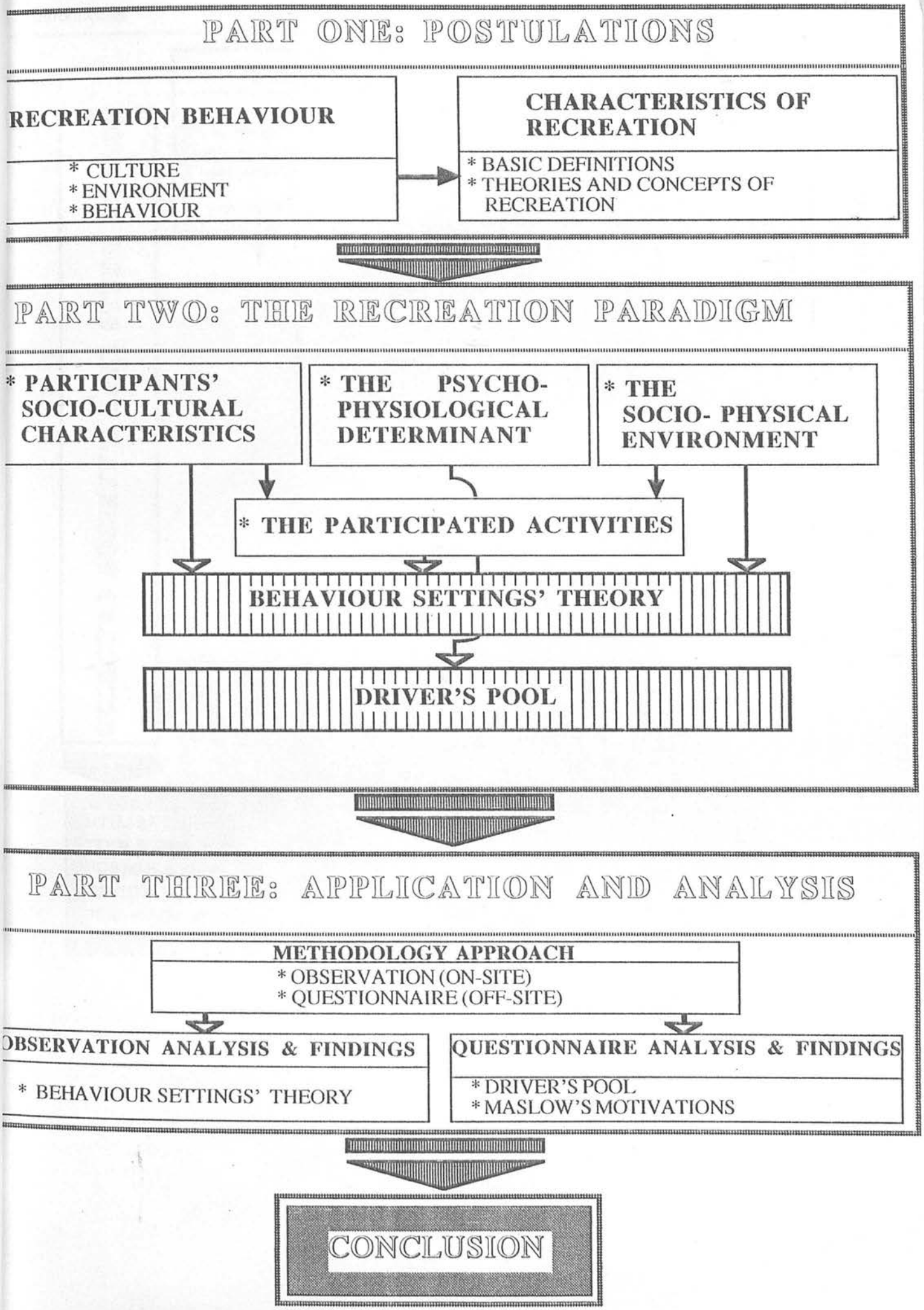

Chart (0.1), the diagrammatic organisation of the research.

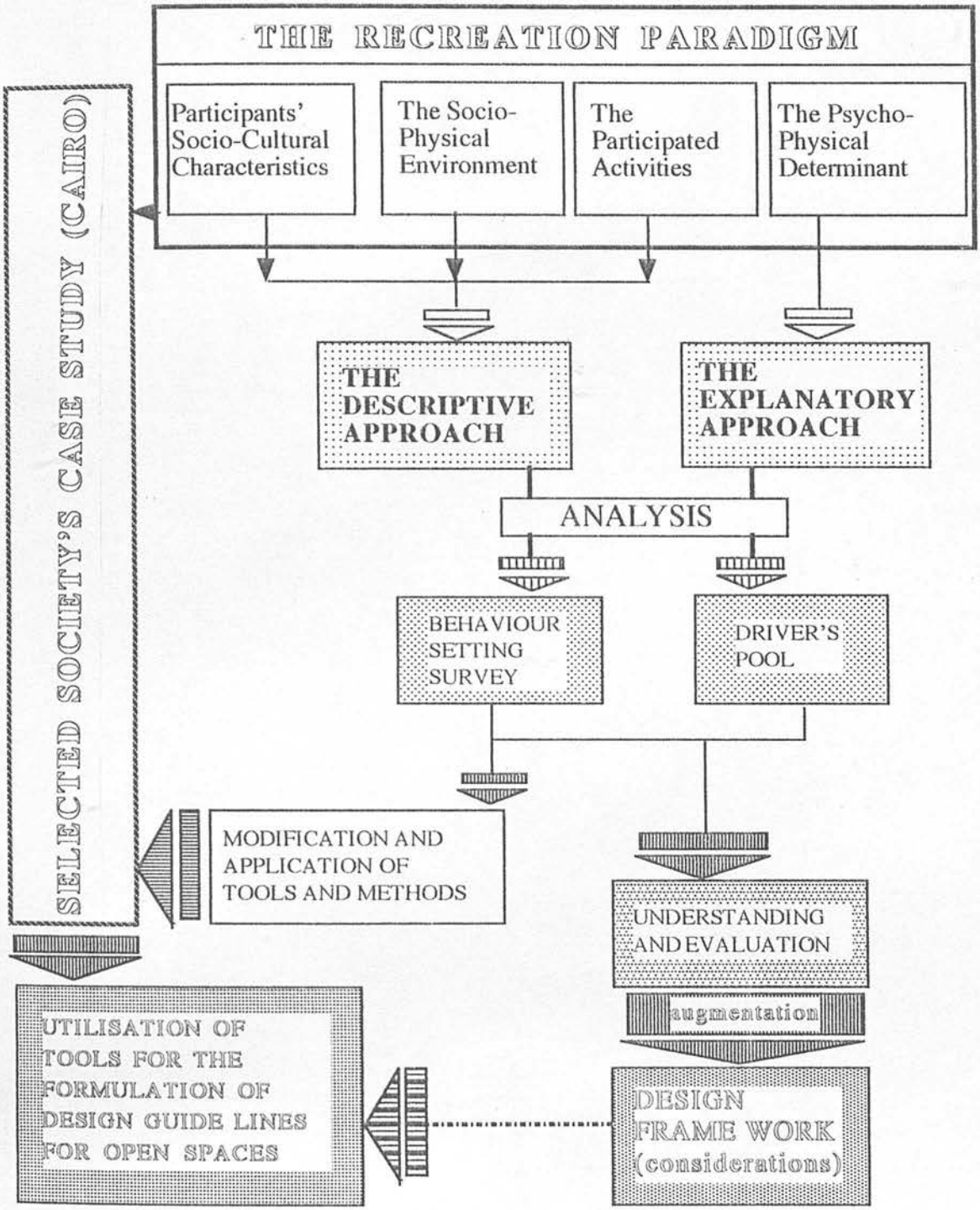

Chart (0.2), Procedures of the recreation paradigm's usage

PART ONE
I. POSTULATIONS

PART ONE

I. POSTULATIONS

Introduction:

The first part of the research is devoted to the theoretical approach. It represents a postulation for the different approaches concerning research in recreation, through its two embodied chapters; recreation behaviour and characteristics of recreation.

The first chapter, recreation behaviour, is considered as an introductory chapter which describes the importance of viewing recreation as a form of human behaviour. The two main components that affect human behaviour and form a society; culture and environment will be distinguished.

The second chapter in the first part, characteristics of recreation, represents the definition of the most used terms concerning recreation and leisure. An exploration of the theoretical approaches for researches dealing with recreation will be also examined. The exploration will help in the identification of the selected approach of the study.

The first part will end by a deduction of what has been referred to as the recreation paradigm. The paradigm is composed of four determinants deduced from both chapters. These determinants cover the two main approaches of recreation research; the descriptive and explanatory. The paradigm has the major role in the research and will be analysed throughout the forthcoming part.

CHAPTER ONE:
1. RECREATION BEHAVIOUR

CHAPTER ONE

1. RECREATIONAL BEHAVIOUR

The first chapter in the research addresses the importance of observing recreation as a form of human behaviour. In a sense, human behaviour is considered to result from the interactions of people with their environment. The term people indicates to humans who live in a society, through which they share a geographic territory, a common culture and a way of life. They are held together by a shared culture, environment and relatively common behaviour. As people interact with each other and their environment, they develop a unique behaviour of their own. This behaviour has different forms one of which is recreation behaviour.

Recreation behaviour, as a unique behaviour, varies widely among people from different as well as of the same society. This variation depends on many factors that can be summarised into two main components; culture and environment. If the two main components in addition to human behaviour are neglected in planning and design, conflict and destruction of the culture may follow. Accordingly, this chapter aims to understand and define these three components; culture, environment and human behaviour, that affect any society. Thereafter, a broad focus must be made on; firstly culture for it embodies the meaning of the society. Secondly, the focus is the environment as it affects the people in a society. Thirdly, the focus is behaviour as it represents the result of the interaction of the previous two factors.

Hence, culture, environment and behaviour are three complex inter-related components, which affect and shape each other. Both culture and environment, control much of human behaviour. Culture appears not only in values, beliefs and styles of behaviour, but also in the physical environment. Any environment always exists within a culture and is part of it. Cultural norms can influence appraisals of the physical environment and therefore, associated emotional responses to such surroundings.

Although the general meaning of culture for most people is the higher `things of the mind' as music, theatres, operas, art, painting, etc., sociologically culture is much deeper than this simple meaning. It is the particular way of life for a specific society. Culture is meant to be the meaning of a country and society, and its member's whole way of life. It includes all the ways and kind of feelings, thinking, and acting within a society, including material artefacts; people's style, way of dressing customs, patterns of behaviour, beliefs, religious ceremonies, leisure pursuits and patterns of work. It is carried in the minds of people who actively perceive, judge and act. Thereafter, culture and society are two interrelated and complemented factors, that one of them cannot exist without the other.

To understand culture it requires definition. The classic definition of culture is a very simple and at the same time an inclusive definition. It implies that the proper domain of anthropology lies in everything man-made and taught to future generations who also accumulate and transmit their knowledge[1]. So through this definition, it appears that cultural codes begin to be learned and passed on from one generation to the other, through participation and experience, from infancy and continuously through life. People are taught and assimilate these codes in society, through their home, school, religious places and by peer group. Most of these codes are absorbed and taught through the surrounding physical and particularly the social environment.

Moreover, Altman and Chemers define culture as a group of people, who have a set of values and beliefs and a world view. It is a conceptual summary of human phenomena, which distinguishes human from non-human realm. Culture is also defined by the anthropologist Herskovists (1952), as the man-made part of the human environment.[2] In other words the concept of culture reflects a multifaceted set of things, from abstract principle about how to view the world to more concrete actions, such as ways of behaving and relating to the environment and ways of raising children.[3] Likewise Lang defines culture as the shared system of beliefs, values, symbols and styles that characterise a group of people and controls much of their behaviour. This explains why, each culture is unique, because it has its own peculiar history.[4] In general to understand the concept of culture, its four ideas should be first defined. These ideas or codes could be revealed from Altman's previous definition and will be studied by these means.

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[1] Sir Edward Taylor, *Primitive culture* , vol. 1, p. 16 John Murray, London.

[2] op cit., Altman and Chemers (1980).

[3] Rapoport, Amos (1976), *The Mutual interaction of People and their Built Environment,* A Cross Cultural Perspective, Mouton Publishers, The Hague, Press.

[4] Lang, Jon (1987), *Creating Architecture Theory: The Role of the Behavioral Sciences in Environmental Design,* Van Nostrand Reinhold Company, New York.

1.1.2 Culture Ideas or Codes :

Culture has several codes that integrate. Everything is part of everything else and nothing is separated. Culture codes are not only genetically or biologically determined. They are also learned from generation to another through socialisation. Every normal infant has the potential to memorise any culture. The one he comes to share is a matter of chance, the accident of his place of birth. Through the process of socialisation or acculturation, the child acquires the culture codes; the prevailing attitudes and beliefs, the forms of behaviour appropriate to the social roles he occupies, and the patterns, values and norms of the society into which he is born. Culture is called man's social heritage, because it is learned as well as transmitted genetically. Although, for the innate potential of the human infant and the inherent plasticity of the human mind, humans not only learn a culture, but they can also forget or cast aside parts of a culture and adopts in their place new and often radically different behaviour forms. This depends on the sort of replacement and how deep this affects culture basic structure. The complexity of the concept culture has rarely been concerned, yet it is too broad a term to be useful without being analysed into its codes.

Culture consists of two basic products that arise from the collective activity and the experience of being human. The first is non material culture, which includes language, art, music and major types of shared ideas: values, norms, beliefs, attitudes, behaviour and activities. The second is material culture, objects that humans make and which become part of our physical environment. The research is concerned with both as well as the relation that combines them. In other ways studying the use of the material culture to enhance the non-material. The non material culture codes will be discussed as follows:

1.1.2.1 Values
1.1.2.1 Norms.
1.1.2.3 Beliefs
1.1.2.4 Attitudes

1.1.2.1 Values: Values are abstract ideas, they are what people have in mind, what is accepted and what is not, what they hold to be good and bad, important and unimportant, desirable and undesirable. In a society, values are shared and passed on to others and through generations, but also members of same society hold different values on some matters. Values are related to motivations as they define the attractive and repulsive elements of the world. They represent a link between a person's emotions, motivations and behaviour. Values seem to change more slowly than other aspects of culture. Although this reluctance to change in the face of rapid technological advance often induces serious stresses, at the same time this essential conservatism of values serves as a brake on uncontrolled change, usually slowing the process to the point where a society can assimilate innovations without threatening its basic structure.

1.1.2.2 Norms: Norms are defined as the definite principles or rules, which people are expected to observe.[1] They are rules about people's behaviour according to their positions in social relationships. Norms represent the `do's' and `don'ts' of social life. So any society has a set of prescribed norms, which define their rights and responsibilities. Through the process of socialisation, cultural norms are transmitted from one generation to the next. This is one of the reasons why norms vary from culture to culture. They are the pattern of commonly held expectations.[2]

1.1.2.3 Beliefs: Every society has its own beliefs, which represent and try to describe some aspect of reality. Beliefs are statements about what is real and are thus the most fundamental of all cultural ideas.

1.1.2.4 Attitudes: Attitudes, as in other aspects of life; vary in direction, saliency, strength, cognitive differentiation, action orientation and verifiability. They are evaluations that periscope us to feel and behave positively or negatively towards people, objects, or situations.[3] Attitudes represent a key part of culture because they reflect the importance of emotions in social life.

These four cultural ideas are organised into social interrelationships among people who occupy different societies. Every culture has an inherent code's system within it. All humans, to a greater or lesser extent, react emotionally to their culture. It is expressed through their attitudes towards most of its codes are variable. They are classified into non accepted categories. Cultural codes symbolise the particular way in which human beings, classify and reflect the cultural orientation of the group in which they have been socialised.

Culture may be thought as a memory bank where codes and knowledge are stored, available immediately and usually without conscious effort, to guide us in the situations in which we routinely find ourselves. The fact that each culture is unique, does not mean that certain values are not held by many cultures, but that each culture is a result of the past efforts of people to deal with its physical and social environment. In order to understand the uniqueness of every society culture diversity and universal should be first addressed.

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[1]Giddens, Anthony (1989), *Sociology*, Polity press in association with Basil Blackwell..

[2]Bates, F. L. (1956), Position Role and Status: A Reformulation of Concepts, *Social Forces* 34: pp. 313-321.

[3] Allport (1935) and Hill (1981), in, Johnson, Allan G. (1989), Human Arrangements: An Introduction to Sociology, Harcourt Brace Jovanovich, second edition.

1.1.3 Culture "Diversity" and Culture "Universals":

Universal needs are things that are shared between societies. For example, there are a number of biological common needs; an organic basis to the need of food, drinks and the maintenance of certain levels of body temperature. This does not mean that people of same culture agree in all aspects, but that they share a common core of consensus. On the other hand, diversity represents the ways in which human needs are satisfied or coped with. Such ways vary widely between and within different cultures. Because of culture diversity, it is not easy for people living in one society to fulfil their cultural components in an environmental built through different culture, background and theories. So every culture should be studied through its own codes; values, norms, behaviour and beliefs. Accordingly, culture diversity and universal will be defined through the following:

1.1.3.1 Culture diversity

1.1.3.2 Culture universals

1.1.3.1 Culture diversity:

As mentioned earlier, culture diversity indicates to the differences between people, either from the same or different society. It could be further classified into two sectors:

a) Culture diversity between societies.

b) Culture diversity within societies.

a) Culture diversity between societies: The diversity of human culture is remarkable. As mentioned before when dealing with culture codes, it is noted that values and norms of behaviour vary from culture to culture, traditional or modern. Language, religion, customs, spatial distances and social behaviour all represent culture diversity between societies. Culture diversity gives meaning and taste to the individuality of societies. Recreation behaviour as a human behaviour should be considered a cultural diversity. Its forms and ways of participation, beside the reason of such participation, all differ from one society to another. Hence, societies are different in many cultural aspects, and recreation behaviour is one of these aspects.

Diversity between societies is more expressed in the differences between the term modern and tradition societies. The traditional culture is the one that tend to extreme forms of the restricted code-extreme repetitiveness, ritual, congruence of personal and social behaviour and so on, while modern cultures are those seem to use versions of elaborated codes.[1] In the traditional culture, codes that are so much clearer and more widely shared can be traced to the consistency of the environment e.g.. people who live in a desert for long

[1]Rapoport, Amos (1978), The Environment as an Enculturating Medium, EDRA (8) Priorities for Environmental Design Research, By EDRA, Inc. pp. 54-57.

have their own traditional codes of culture, the clarity of the categories in it, their use by different groups in similar ways according to universally understood and accepted rules.

b) Culture diversity within a society: In general, within any society, culture has many levels from broad aspects to very small social units. The differences between the nature of urban and rural groups of the same society present a good example of the variety of levels. Rural areas tend to be culturally uniform, while urban areas, may be because of the wide variety in classes, are extremely culturally diverse. Besides, in a given country, region or city; groups and some time individuals, differ in life-style, activity pattern and social structure, which depends on place of origin, degree of urbanisation or class differences. In a sense, culture diversity explains why people coming from a certain culture, find it difficult to understand or sympathise with the beliefs and behaviour of those from other cultures.

1.1.3.2 Culture universals :

In spite of the diversity of cultural behaviour, there are some common features between cultures. One of these is language. There is not a culture which does not have a structured grammar of a certain language by which its people converse. The same goes for some recognisable forms of family systems, religious rituals and property right. Moreover, even every society has its own art, jokes, games, activities, presents and gifts. Every culture has some recognisable norms and values, that are passed through the family to children, beside some forms of prohibitions that are universal between cultures, such as forbidding lying and steeling. In spite of all these universal similarities, there are many varieties in values and models of behaviour between different societies. In a general sense, recreation behaviour is considered a cultural universal, it exists in every society but differs between societies in its forms and patterns. These differences indicate the uniqueness of such behaviour in every society. Culture is not the only component that affect human behaviour, environment, which differ between societies, also has a great influence.

1.2 Environment:

The environment is often regarded as simply the matrix enclosing the culture, social, physiological and personality systems or simply the physical settings of a particular activity. It is easier to describe the environment than to define it, a characteristic which it shares with such terms as culture and behaviour. Theoretically, the environment is defined by the American Heritage Dictionary as: `The total of circumstances surrounding an organism or group of organisms. Specially: a) the combination of external or extrinsic physical conditions that affect and influence the

growth and development of organisms. b) The complex of social and cultural conditions affecting the nature of an individual or community.'[1]

In spite of this theoretical definition, it is noted that the meaning of the environment varies from behavioural, natural scientists or geographers' point of view. For example, architects define the environment as the built environment, while geographers view it as the physical world of land forms and climate. For sociologists the environment consists of social groups of individual, while for counsellors and child psychiatrists, the word environment means the home background of the child. On the other hand, ordinary people react to the environment only as they perceive it and understand it, through their previous experiences. Although humans are affected and affect the environment in indirect and direct ways, they are not conscious of the indirect effect of the environment on their behaviour.

Moreover, another contributed definition of the environment is that it "surrounds".[2] This definition is a key attribute to any definition. It indicates that any description or explanation of the environment must be with reference to something surrounding. Such a surrounding includes reference to the animated, social, terrestrial and cultural components. Each of these surroundings affects the lives, behaviour and perception of users. This is found in Steel's definition for the environmental competence as (a) a person's ability to be aware of the surrounding environment and its impact on him; and (b) his ability to use or change his settings to help him achieve his goals without inappropriately destroying the setting or reducing his sense of effectiveness or that of the people around him.[3] Steele describes the relationship between humans and their environment through classifying it to six functional categories: safety or security, social interaction, task instrumentality, symbolic identification, growth or learning and pleasure. The research is concerned with the environment, representing what 'surrounds' and affects people's behaviour in recreation. It is concerned with the links between man and environment, rather than with either human needs or physical elements considered in isolation. For this reason a study or research of human needs that does not focus on the role of the physical and human-made environment and their interrelated relation is considered incomplete. Accordingly, the environment will be construed in terms of both its physical features (fixed) and the individuals' representations of those features. It will be classified through both the fixed or permanent environment (physical surroundings)

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[1] Krasner ; Leonard (1980) *Environmental Design and Human Behaviour* : A psychology of the individual in society, Pergamon General Psychology Series.

[2] Gibson , James J. (1966) *The Senses Considered as Perceptual Systems*, Boston: Houghton Miffin; Ittelson , William H. (1973), Environmental Perception and Contemporary Perceptual Theory," in Ittelson, ed., Environment and Cognition, New York: Seminar Press, pp. 1-19.

[3] Steele, F. I. (1973), *Physical Settings and Organisational Development*, Addison-Wesley Publishing Co., Reading, MA, p.113.

and the animated or temporal environment (the social in which human beings behave and relate). The division between both forms of the environment is described as permeable, and will be studied as:

1.2.1 The Physical Environment

1.2.2 The Social Environment

1.2.1 The Physical Environment:

The fixed environment is sometimes defined as the physical environment,[1] the terrestrial or geographical environment.[2] All these definitions point to the non social and non cultural aspects of our surroundings. The physical environment could be measured and quantified by scales or some objective standards. It could be further classified into two terms, the natural and the human-made environment., both will be defined as follows:

1.2.1.1 The natural environment

1.2.1.2 The man-made environment

1.2.1.1 The natural environment:

According to the Kaplans[3] nature has many settings. The use of the word nature is intended to be broad and inclusive. The discussion of nature here is not limited to those faraway, vast and pure places where there has been little human intervention, or to places designated as "natural areas" by some governmental authority. Nature includes parks and open spaces, meadows and abandoned fields, street trees and backyard gardens. These are places that are near and far, common and unusual, managed and unkempt, big, small and in-between, where plants grow by human design or even despite it. These are areas that would often be described as green, but they are also natural when the green is replaced by any other colour. The natural environment includes plants and various forms of vegetation. Vegetation affect people physically and psychologically.

Subjective values which are assigned are not intrinsic to vegetation but rather are influenced by the viewers' attitudes and experiences. Indeed, different groups may respond in different ways to the same natural environment. While a suburbanite might find pleasure in the aspect of a forest, to a street-wise child of the inner city, it often appears as a hostile mysterious place, full of imagined dangers. The effect and perception of the natural environment and its effect on perceivers and users are enormous. Many

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[1] op cit. Altman, (1980).

[2] Sonnenfield, Joseph (1972) *Geography, Perception, and the Behavioural Environment*, in Paul Ward English and Robert C. Mayfield (eds.) *Man, space and environment: concept in contemporary Human Geography*. p. 224; also see Lang, Jon (1987) *Creating Architecture Theory*, Van Nostrand Reinhold Company, New York.

[3] Kaplan Rachel and Kaplan Stephen (1989), *The Experience of Nature: A Psychological Perspective*, Cambridge University Press, Cambridge.

research were interested in this point, although at this chapter such aspects will be mentioned but not in depth as it is more devoted and directed to physicality.

From the psychological point of view, vegetation may be experienced at several levels of perception. Through passive observation, the viewer looks at scenes of vegetation and may experience emotional responses. At this level, contact between viewer and vegetation is visual and responses produced are limited by the remote mode of experiencing. Many natural settings are appreciated for the opportunities to do things that are hard to do without the nature component. As Kaplan pointed out, " Much of nature is fascinating to people. It both focuses and fills the mind, it drives away distraction and confusion. This is particularly important today when the pain of confusion and indecision is a widespread. Fascination banishes confusion and brings instead serenity, tranquillity, peace."[1]

The physical environment, which has the strong psychological influence on humans, could be referred to as follows:

a) The geographical environment.

b) The climatic environment.

a) The geographical environment: The geographical environment refers to the natural features. They are the God given elements of nature as they are distinctly placed, i.e. rivers, valleys, mountains, and oceans. These geographical natural features of the environment are either major or minor. The major natural features are the dominant ones, that can be altered little, if at all. They are unchangeable features, accepted as they are. On the other hand, the minor features are of lesser consequence such as hills, groves and streams which can be modified. Any change in the geographical environment largely depends on the available technology and mechanical instruments. Both, technology and instruments, enable as well as give limits to such change.

b) The climatic environment: The climatic environment means the degree and range of temperature, humidity, rainfall, flora and fauna. All these environmental conditions have a major influence on people. Still, the strong climatic elements are a matter beyond man's control. Man can only modify local climate through the components of the natural environment; soil could be modified; water could be supplied; greens could be planted. Despite this, there is nothing that can be done about the macro climate of any area but accept it. Within the overall picture climate, as a natural component of the environment, varies widely on earth, even in the same part of the world.

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[1] Kaplan, S. (1978), "Every day Environments as a Design Resource", EDRA (8), priorities for environmental design research, p.p. 489-493.

In general, the natural environment has some constant and variable features. For example, gravity is a constant object, while the existence and distribution of hills, valleys, trees, rivers, seas, oceans vary. Some areas are much rich and abundant than others. All these variations in the physical environment largely affect people's behaviour. It is noted that some features of the environment bring strong control on people's behaviour. For example, people who live in the desert are greatly influenced by their environment they are stronger than who live by the water, as water softens the inhabitants' behaviour.

The natural environment with its different geographical regions, climatic conditions and natural resources provides a natural habitat for all living things. Nature has provided a carefully balances ecological system that continuously revives the food-life cycle and supports human life. Some regions have rich fertile lands more suitable for human habitation than others and human life has been sustained and improved by cultivating these lands. It is now evident that the industrial revolution and subsequent scientific and technological advancements have altered most human life-styles. People are no longer required to live in an area capable of supporting human life. They have learned to control some elements of the environment and technology has made it possible to support human life in any geographical area. But was it worth it? It is noted that industrial and developing nations are confronted with a variety of ecological problems: air, water, noise and people's pollution, the energy crisis and other human problems. Apparently as living conditions change due to technology, problems increase all of which are directly related to the natural environment. The ecological problem exists within the environmental context when humans interfere with the natural environment to fill their technological and progress thirst without considering the natural balance of such an environment. It all started when human made their own environment with no consideration to the ecological future. This was and still is presented in the human-made environment, the second component of the physical environment.

1.2.1.2 The human-made environment :

It is what man creates to fulfil his needs; building in the natural environment and subsequently becoming part of it. This includes buildings, structures and the open spaces between them. The natural environment implies some constraints on the built one, through constructing material and methods of construction in order to modify the local climate. Also many features of the human-made environment can affect the climatic environment, specially the local climate; through location, density of the urban area, orientation and width of streets, height and relative heights of buildings and special design of the building. All these affect the outdoor conditions, and subsequently affect humans. In other words, the physical environment, through all its forms, represents a tool which affects humans' behaviour and attitude. Beside the influence of the physical environment, humans are also affected by the social environment.

1.2.2 The Social Environment :

This environment refers to the users of the environment, in both forms; as a single individual and group. The social environment is much more complicated to identify than the fixed because of the difficulty of separating it from behaviour. The social environment consisting of the family unit, neighbourhood, schools, mosques, etc., provides experiences that influence the developing of an individual's physiological orientation. All humans have biological and personal traits that make them unique, but they also operate within a social culture as well as a terrestrial context. Hence, the social environment is affected by many interrelated factors, as culture, life-cycle, class, income, and professional structure.

An individual's recreation interests, skills and pursuits are influenced by both forms of the environment and a philosophy of recreation is developed through interaction with the total environment. Accordingly, the social environment as the physical should be considered in designing and planning. Its importance is even more noticed especially in designing for outdoor recreation behaviour. Within such design, the physical environment is viewed as a tool that enables designers and planners to enhance human recreation behaviour. In achieving such tasks, designers and planners should consider recreation through the concept of culture diversity, and study the participants' socio-economic characteristics. Consequently, the social environment should be looked at in terms of life-cycle stages, life style and social classes, which will be generally described as follows:

1.2.2.1 The social environment and life-cycle stages

1.2.2.2 Social class differences and the social environment.

1.2.2.1 The social environment and life- cycle stages:

The simple approach depicting various transitions through which individuals pass during their lives and which seem to be biologically fixed from childhood, should be rejected. Beside it being a biological, the social influence, environmental and cultural differences should be taken into account. Moreover, the very close relation between a person life-stage and the fixed environment, as it affects the social environment, is worth mentioning. A classification of life-cycle stages by Giddens,[1] will be useful. In his book Giddens classifies life-cycle stages into four stages, starting form the childhood stage then the teenagers, followed by adulthood and finally the old age.

a) Childhood: This stage is distinct from that of babies and toddlers, where children are developing physiologically and mentally. At this age, the environment means an opportunity to play, so the way children view it depends on the degree of affordance[2] this

[1] op cit. Giddens, (1989).

[2] The term affordance will be defined later in chapter four and five.

environment will give to fulfil their needs. In addition, the physical aspects and contact with the same age group are important to children. Children in this stage of age, still largely depend on their parents' help. From this stage human behaviour starts to be formulated through their contact with the physical and social environment.

b) Adolescence or teenagers: It begins by the time that children no longer are required to be children. Due to the pace of change, teenagers are in a stage between childhood and adulthood, growing up in a society subject to continuous change. At this stage, humans' perception of the word starts to have a personal view. Because of their biological changes, their psychological attitude towards their surroundings is not an easy task to define. Teenagers often describe the environment as boring, offering nothing that they can control and manage. Contact with peer groups, plays an important role during adolescence and this is reflected in their environment preference.

c) Adulthood: At this stage of life, major uncertainties have to be resolved in marriage, family life and other social contexts. The creation of many ties, e.g. martial ties, depends upon the person selection rather than being fixed by parents. In some societies (such as the modern), the separation from the family starts at this stage. Although in traditional societies marriage is the reason of separation from the parent's home, children still maintain a close connection with their parents. While in modern societies, this is defined by law at a specific age. Because of marriage humans' perception of the environment changes according to their children's needs.

d) Old age: This stage is the very matured stage where humans' perception of their environment, social or physical is more constant. At this stage, humans are more freed from responsibilities, as a result of retirement and children's marriage.

In traditional cultures, major differences can be found in the behaviour patterns, one of which is the recreation behaviour. These differences within the society could be further noticed in the social class differences, and an important aspect of these behaviour patterns is importantly related to future life-styles and social position. A traditional culture is a logically integrated, functional, sense-making whole. It is not an accidental collection of customs and habits thrown together by chance. It is a cultural system that been composed, overlying over time, where traditional value systems and codes are based on certain institutions as religion or any other pillar.

In tradition societies not only families' relations are different from the modern or open society, but also friends relation varies. The system of friends in tradition societies is a tree system, while it is a semi-lattice not a tree in the modern [see figure (1.2)]. In tradition cultures as the Egyptian, family and friends' bonds are very strong. Families are usually represented by three generations; the grand parents, parents and children as the extended family.

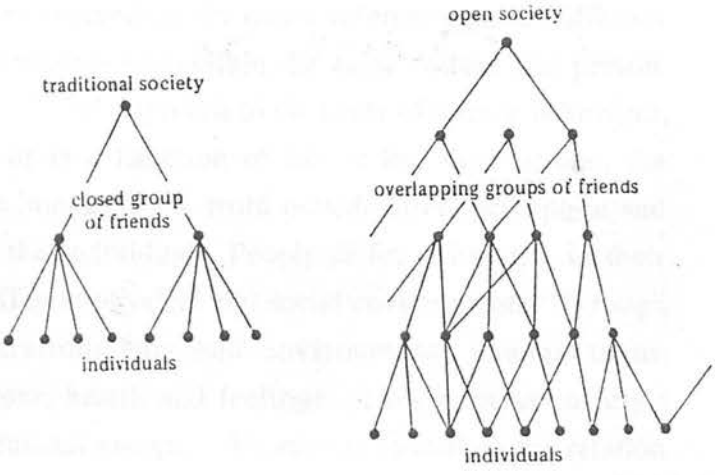

Fig. (1.2), Differences between traditional and modern societies in terms of friends' relation. [1]

Moreover, human behaviour is not only affected by life-cycle stages, it is affected also by humans' social-class differences, which will be classified through the next point.

1.2.2.2 The social environment and social-class differences:

Human behaviour varies remarkably between social class and life-style differences. Not only education that determine such differences in behaviour, also economic levels. Consequently, humans behaviour within a society differs largely depending on several interrelating factors. In their interaction with both forms of the environment, people behave in a way that matches their cultural codes. Human behaviour is considered as the result of the interaction between the environment in both its forms and culture with all its aspects. Human behaviour therefore should be studied in terms of people's culture and environment.

1.3 Human Behaviour:

Human behaviour represent a translation of culture from what in people's minds within the constraints of their situation. It indicates how people in a society, holding values and following norms behave and their style and pattern of behaviour. This does not mean that people of a society behave the same, but in contrary they differ due to culture diversity. In other words, behaviour is the active action where people who believe in certain values follow specific norms to achieve these values. The behaviour of individuals within a culture is what shapes it, so that it is not something static, but something that evolves over time.

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[1] Alexander, Christopher A City is Not a Tree, in Stephen Kaplan and Rachel Kaplan (eds.) (1978), Humanscape: Environments for People, Library of Congress Catalogues in Publication Data.

Human behaviour is considered as one of the complex subjects, where knowledge about it subsists in many disciplines. Behaviour represents one of the culture codes, which is learned through generations. It varies depending on many interacting and different factors, also it differs from culture to another and within the same culture and person. The environmental perception and behavioural approach to the study of human behaviour, suggest that an individual's behaviour is a function of his or her motivations, the affordance of the environment and the images of the word outside direct perception and the meanings those images have for the individual. People differ culturally, in their motivations, through growing up in different physical and social environments. Through their change they both; change environments and environments change them. Environments affect humans' behaviour, health and feelings. They express society's dominant values and the values of dominant groups. An attempt to outline the relation between environment and behaviour will be achieved later in this chapter.

There are several approaches to the study of behaviour. The following brief account of developmental and motivational theory, psychological and sociological needs and recreation can be used as the introduction of behaviour science and recreation. Factors affecting human behaviour in general will be mentioned. These factors represent the fabric of normative life-style, of a social community called culture. This chapter will classify human differences in behaviour, as a result of the complex interactions of three main things; first, is the relation between human behaviour and his/her general condition. Second, is the interaction between humans and their needs. Third, is the effect of the environment on human behaviour. They will be classified through the followings:

1.3.1 Behaviour and Human Conditions.

1.3.2 Behaviour and Human Needs.

1.3.3 Behaviour and the Environment.

1.3.1 Behaviour and Human Conditions:

The first kind of relation depends on three interrelated human conditions. They differ from person to another depending on class, income, and professional structure. They also differ within the same person depending on age and time. Human conditions are classified into the following:

1.3.1.1 The physical condition

1.3.1.2 The psychological condition

1.3.1.3 The physiological condition

1.3.1.1 The physical condition:

This is considered as an outer condition. It indicates human shape and size, which could be described through measurements and scales. Human beings are not physically alike because of the effect of their physical environment, for example; the physical

difference in colour, body built and features; between Africans, Far East people and Europeans. The physical condition, as well, differs within the same environment and person through life-cycle and stage. Children's movement, activity and behaviour are different from old people for many reasons, i.e. the physical form, as muscles' development and motor ability. In addition, under certain conditions, humans may behave differently as a cause of temporal or permanent illness.

1.3.1.2 The psychological condition:

Health in general means to be fit both physically and psychologically. The World Health Organisation describes health as a state of physical, mental and social well being.[1] So, an individual's psychological condition depends on his social, physical and mental condition; through his needs to be free from stress, depression and confusion. People differ psychologically, in the same society depending on social class, past experience, motive and ethnic group. Moreover it differs within the same person, depending not only on stage of life, but also on outer pressure, daily routine, responsibilities, and personal mood. A person does not maintain the same psychological condition through his different life- cycles.

1.3.1.2 The physiological condition:

This refers to the human needs that motivate and underlie behaviour. Man needs many things in his life. The relative strength of every need varies from person to another depending on personality, age, education and whether it is for the individual or group. Since behaviour is the active action of people's need, therefore it differs through the same situations of needs. Human needs represent the next point that affects human behaviour.

1.3.2 Behaviour and Human Needs:

Dealing with human needs, many theories offer different lists of the essential motivating and physiological factors.[2] The most organised and comprehensive theory is "Maslow's".[3] Abraham Maslow assumes that you accept that humans are animals on the highest link of the evolutionary chain. Yet, while holding to the idea that all mammals have common needs (acceding somewhat to the followers of nature), Maslow distinguishes humans from lower animals by their advanced learning capacities. Learning complicates the lives of higher species in that they become faced with additional demands and the entertainment of choice. Maslow believes that there is a "natural folding" of man's needs in a progressive gradual and hierarchical fashion. This hierarchy is

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[1] Laurie; Michael, (1986) *An Introduction to landscape architecture*, Elsevier, second edition.
[2] Psychologists as H. Murray, G. Allport, A. Maslow, W. C. Schitz and Ingrid Gehl.
[3] Maslow, Abraham H. (1970), *Motivation and Personality*, Haper Collins Publishers, third edition.

organised in the strongest level needs taking precedence; starting from the "lower needs" to the "higher needs". Human beings follow this development as they mature, ideally arriving at self actualisation (the higher need). Through Maslow's theory, there are basically five levels in a hierarchical order through which human's both behaviour and environment are affected, they are classified in descending order as follows:

1.3.2.1 Physiological needs.

1.3.2.2. Safety needs.

1.3.2.3 Affiliation needs

1.3.2.4 Esteem needs

1.3.2.5 Needs of self actualisation

1.3.2.1 Physiological needs:

These needs are more biological such as hunger and thirst. People's behaviour is different through lack of food. The physiological needs are largely fulfilled through the physical environment, specially the natural. According to Maslow, physiological needs dominate a human organism when unsatisfied, precluding the activation of other need levels. When physiological needs are satisfied, a second level of motivations is activated which Maslow termed 'safety needs'.

1.3.2.2 Safety needs:

Beside the protection from the physical harm come security, order, freedom from pain, discomfort and threat. This could be in the form of promote self orientation in the human-made environment, that the person is safe in this place and not lost. When both physiological and safety needs are satisfied Maslow's theory states that a third need level is activated. It is characterised by the need for love and affection and belongingness.

1.3.2.3 Affiliation need:

Love needs, affection, friendship identification, all concerns the relationship of responsive and authoritative needs. It is the need to be in groups, to be within others, watch and be watched through social environment. When the third needs level is satisfied, a fourth need is supposedly activated. The fourth level in the Maslow hierarchy is termed 'Esteem Needs'.

1.3.2.4 Esteem needs:

Esteem needs are those of an individual to be held in high esteem, in his own eyes as well as those of others. According to Maslow, satisfaction of the need for esteem produces feelings which include self confidence worth, strength and capability. Satisfaction of esteem needs supposedly activates the fifth and highest need level, the need for self-actualisation.

1.3.2.5 Need of self-actualisation:

Man's desire for self- fulfilment, "to become every thing that one is capable of becoming", this is related to man's actual or perceived control of his environments. Self-actualising people are characterised by such thing as creativeness and preference for solitude and privacy. Finally, Maslow adds to these five needs the desire to know and understand and the aesthetic needs as an after thought.

This has been identified in some of his workings as belonging to the self-actualisation level of hierarchy. This represents the need to learn and man's personal concept of beauty. So a person is free to come self - actualised, once he or she is freed from the domination of the lower needs and in a position to allow his or her potentialities to flourish, [figure (1.3)]. Maslow's theory will be discussed more fully with relation to outdoor recreation in the forthcoming chapters. At each level in Maslow's hierarchy and as supported by Lang,[1] needs are largely fulfilled through social and cultural mechanisms not related to elements of the architecture environment.

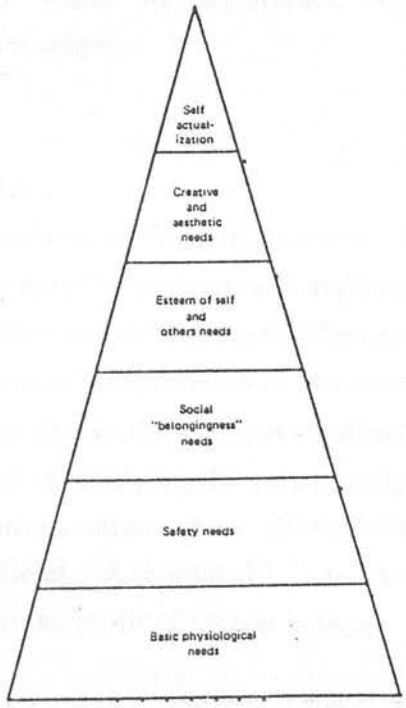

Fig. (1.3) Maslow's triangle of needs[2]

As mentioned before, these physiological factors are not equal in importance and they do not have the same priority, they vary widely between and within societies. It is noted that in societies where food and security are more or less assured, the needs for affection and self- esteem become more important and vice- versa. As for individuals of the same society, the physiological factors vary depending on class differences, income and professional structure. One person's means for fulfilling a priority need may also be found to be quite different from another. To an individual, it may be satisfied through the conspicuous ownership of a car. But to another it may be satisfied through a display of attire, to a third thought the maintenance of a leadership role, or to a fourth more simply, through acquisition of membership in just the right club. Also, for the same person these needs differ through stages of life.

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[1] op cit., Lang, Jon (1987).

[2] Torkisen, G. (1986), Leisure and Recreation Management, Great Britain: University Press, Cambridge, 2nd edition.

Generally, physiological factors can be classified into two categories, depending on the degree of importance and priority. First, are the main physiological needs, the need of food, water, healthy air, rest, exercise and protection from excess of heat and cold. The second, are the semi- physiological needs, the need of self- actualisation, esteem and preservation, and avoidance of pain. It is noted that human needs include more than physical comfort, they include an awareness and response to the inseparability of seasonal changes, time and end of life, e.g. age affects the semi- physiological needs, they differ between life- stages within the same society, while the importance of the main physiological needs is nearly the same through life- stages.

1.3.3 Human Behaviour and the Environment:

The third term that affects human behaviour is the environment. From the psychological point of view, the relation between both the environment and behaviour, is indicated as the dependant represented by behaviour; and independent as the environment. The "behavioural environment" points to the person's experience of the environment, which generates patterns of activities and actions that in their turn both affect and take place within the fixed environment. The reason of studying the relationship between behaviour and environment, is to create communities where the affects of this environment on people are positive and beneficial. Accordingly, it is important to understand and make sense of the environment for the profit of human beings.

In the environmental-behaviour equation, behaviour is the active part. Humans cannot stop behaving through their life. Behaviour is what a human is doing at any moment. However within its relation to the environment, any behaviour should be seen within an environmental context. There is always a surrounding environment and thus always a behaviour-environment relationship. On the other hand, the environmental end of the behaviour-environment equation does not recognise that an environmental context provides cues to the proper behaviour expected. Often, the environment will determine the kind of behaviour takes place. Some researchers refers to such a relation as affordance[1] while others refer to it as supportive[2].

Research that ties together the environment and behaviour is relatively recent, but individual studies and substantive texts have advanced far more explicitly than have works focusing methods. One such method is the behaviour settings theory. This method was developed in the 1940s and 1950s by psychologist Roger Barker and his colleagues,

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[1] op cit., Gibson, (1966).
[2] op cit., Kaplan, (1989).

working in a small Midwest towns[1]. Behaviour settings theory seems very promising although it has not been used very frequently since that time. The research will deal and discuss this theory later in the following chapters. Within the first chapter the relation between the environment and behaviour will be defined broadly as follows:

1.3.3.1 Behaviour and the physical environment.

1.3.3.2 Behaviour and the natural environment.

1.3.3.1 Behaviour and the physical environment:

According to Rapoport, there are indirect effects of the environment on behaviour. In certain situations the effect of the environment is not due to the influence of the environment on human-well being, mood or behaviour, rather it is due to cues which the observer interprets in terms of the social situation and then acts on accordingly. In that case the effect is social but the cues to this social situation are environmental. This not only presupposes that the environment provides these cues but also that people in a given culture can interpret or read these cues.[2]

1.3.3.2 Behaviour and the natural environment:

The climate and topography of the environment, affect people's behaviour remarkably. They reflect the distribution and nature of behaviour settings in a place. The pace of life, the use of out-door space, the nature of activities, specially the recreational, reflect the nature features and climate of an era. Climate variables, have physical effects on motor behaviour in a direction one would commonly suppose. The outdoor environment is distributed in response to environmental mediated forces such as weather, energy availability. It is increasingly a source of interest, fascination and affection. The power of nature on people is remarkable. For most people, nature is fascinating. Fascination in turn is highly valued by people. It both drives away distraction and confusion and it focuses and fill the mind. Today, this affect of nature on people is very important, because the stress, depression and confusion are so widespread. Stress and confusion, which result from the tense of life is mostly replaced by peace and calm when humans contact nature. Through recreation behaviour, humans can still gain their contact with the natural environment, and accordingly ease part of the pressure obtained from their daily life and urban constraints.

However, the way in which people respond to a natural environment should be considered. This largely depends on their goals, their personalities and their repertoire of past experiences. Certainly there is evidence that the inherent properties of nature have

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[1] Bechtel, Robert,(1978), *Ecological Psychology*, in Bechtel, R. B., Marans, R. W. and Michelson, William, (eds.), Methods in Environmental and Behaviural Research, Van Nostrand Reinhold Company, New York.

[2] op cit., Rapoport, (1978).

an influence on the individual and his or her behaviour. However, there is also evidence that prior experience can modulate what the character of that influence will be. On the other hand in people's contact with the man-made environment, their behaviour changes. The relation between people and the human-made environment indicates to how people feel and interact in such environment, in addition to what they do. The environment should encourage different types of interactions, co-operations, conflict, acculturation, etc. Because this is the human controlled environment, a designer must be very sensitive in dealing with it.

As any form of human behaviour, outdoor recreation is affected and influenced by many socio- cultural variables, (e.g., age between individuals in the same society, income, place of residence and family life- cycle). All these support the attention to the diversity and persuasiveness of the role of socio-cultural forces in determining activities in the outdoors. Although recreation is ever changing, with the change of people's culture, economy and society, it brings people together from all sorts and acts as a catalyst in making a melting pot of human relations.

Gray has concluded that recreation serves to improve 'awareness' and understanding. It stimulates appreciation, developing personal powers and enlargement. It promotes individual fulfilment encourages self-discovery and gives meaning to life.[1] The holistic perspective of recreation suggests that every human endeavour has the potential for positive experiences and positive experiences are a major attribute of recreation. According to Gray[2], recreation as traditionally defined as an activity, voluntarily pursued to satisfy the need for diversion, to be re-created for work or other obligations, has not advanced the movement of recreation research. Traditional concepts of recreation have limited the understanding of recreation and its potential and organised programming efforts. The new perspective of recreation suggests that the agencies responsible for providing recreation services should re-examine their goals and objectives and place great emphasis on providing experiences that contribute to human development through behaviour. Accepting the proposition that recreation is a basic human need and that it contributes to all aspects of human development, recreation planning is planned to promote human interactions, self discovery and human development. The behavioural sciences provide the planner with an understanding of the values and impact of quality recreation experienced on human behaviour.

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[1] Gray, cited in Murphy (1975), page 214
[2] ibid., Murphy (1975)

An understanding of the physiological, psychological and sociological aspects of human behaviour and human development provides the foundation for planning relevant and responsive programs. Recreation can be considered as an opportunity for experiences that contributes to the quality of life and personal growth and development. Understanding the various physical, psychological and social needs of individuals as they occur on the human lifeline is a pre-requisite for recreation planning. The process of correlating human needs to recreation opportunities is an extremely difficult and complex task. Normal human behaviour varies in a way that does not make it possible to predict behaviour or specify recreational needs. The behavioural sciences provide a foundation for attempting to match recreation opportunities with normal human needs.

Summary:

The first chapter of the research represents a general scope of viewing recreation as a wider part of human behaviour. Through the chapter it has been deduced that any single behaviour is a result of the two interrelating factors, culture and environment. Accordingly, the chapter is an exploration for; culture, environment and behaviour and their meanings.

Culture consists of two basic products that arise from the collective activity and the experience of human beings. First is non material culture, which includes language, art; music, and four major types of shared ideas: beliefs, norms, values and attitudes. The second is 'material' culture, which indicates those objects that are human-made and which are part of their physical environment. Although culture consists of both, material and non-material, the essence of culture is non material and is made up of abstract beliefs, values, attitudes and norms, while the material part symbolises the essence of the non material.

The culture that any human shares, is a matter of chance, the accident of his place of birth, and the people who socialise with him. Through the process of socialisation man acquires the prevailing attitudes and beliefs, the patterns and forms of behaviour appropriate to the social role he occupies, and the patterns and values of society in which he is born. Cultural codes, position in the social structure, opportunities and barriers, and particularities of socialisation through the life course are combined in the lifelong process of leisure and recreation development. Culture, the learned and transmitted elements of life, is woven through everything we do. Not only social norms of culture, but also technological use, interaction styles and complex sets of rules must be learned in order to participate in most outdoor recreation. The ethnicity of recreation does not deny environmental influences or participation styles. Rather, the styles learned are specific to the groups in which they find their social identity. The ways humans play, converse, eat

and drink, and otherwise interact are those they have learned among those who are 'their people'. Further, those styles serve to preserve and strengthen the identity of the group and give members a sense of being part of a collectively that is real. Recreation as a behaviour is not only affected by the participants' culture, but by the environment as well.

On the other hand, the environment classified as physical and social, has a strong impact on people's behaviour. Human behaviour is largely affected and affects the environment in both forms; the physical, through both natural and human-made, while the social through the interaction between people, through life-cycle stages, class differences and many other factors. The human conditions in terms of the physical, psychological and physiological influences have a principle effect on human behaviour. Maslow's theory was structured on the interrelation between those conditions.

There are advantages in viewing recreation behaviourally. Behaviourally, recreation design respects both culture and the environment. Culture through both the material and non material components beside the unique human needs of the specific society. On the other hand, it respects the environment in terms of both the physical and social. Behaviour, hence, should be considered and is a product of the components of both culture and environment.

In conclusion, recreation as any behaviour differs widely between and within societies. Such differences stem from the difference in both culture and the environment. Accordingly recreation planning and designing for a particular society should be based on understanding the unique rules that suites such society. In other words, in planning and designing for recreation, diversity between and within societies should be taken in consideration beside the physical and social environment of the particular society. Subsequently, the following chapter represents the benefits of viewing recreation in terms of behaviour through defining the meanings of recreation. Moreover, theory and research handling recreation behaviour will be explored.

CHAPTER TWO:
2. CHARACTERISTICS OF RECREATION

CHAPTER TWO

2. CHARACTERISTICS OF RECREATION

The second chapter of the research is devoted to the theoretical approach of recreation behaviour. It aims to clarify some definitions of the important terms of recreation. Following the definitions, through this chapter a theoretical preview will be mentioned, where most approaches of dealing with recreation will be revealed. By the end of the chapter and from the definitions and theoretical approach, a multi-relation paradigm will be deduced. The paradigm represents the corner stone of the following part. Accordingly, chapter two will be studied through the followings:

2.1 Basic Definitions.

2.2 Theoretical Approach of Recreation.

2.3 The Recreation Paradigm.

2.1 Basic Definitions:

Definitions can play an important role in helping to clarify issues, encourage communication and minimise the ambiguity associated with most recreation efforts. They represent an important aspect prompting people to understand the problem. Moreover, definitions are largely influenced by people's perception and are affected by the cultural diversity of societies. The amorphous and dynamic nature of leisure and recreation result in their definition being in a state of flux. Traditionally such definitions have been descriptive in nature. The definition of both recreation and leisure will be revealed with relation to both the Western and Egyptian context through the following:

2.1.1 Recreation.

2.1.2 Leisure.

2.1.1 Recreation:

According to Gray, recreation is an emotional condition within an individual human being that flows from a feeling of well-being and self-actualisation.[1] Another definition of recreation which further develop the outcome component of recreation is that recreation is defined as "a refreshment of strength and spirits after toil; diversion or a mode of diversion, play; also a mode or means of getting diversion."[2] It refers to any leisure time activity which is pursued for its own sake, or what happens to a person as a result of a recreation experience. So it represents activities undertaken because one wants to do them. Whatever activity or experience reinvigorates, refreshes becomes a recreation. The same activity may or may not be a means of recreations at another points in time. Looked at in this way, any situation can function as a recreation experience, whether at work, during 'semi leisure' as Dumasedier calls it[3], or in leisure time. However, it is in leisure time, when we are completely free to be ourselves, that recreation is more likely to occur. Such definition of recreation is considered traditional.

On the other hand and in a deeper psychological sense, recreation refers to the human emotional and inspirational experience arising out of the recreation act. For some people recreation contrast with work, which is done primarily to earn money or otherwise to provide the 'necessities' of life, or what have come to be so considered, for one's self and one's family. Some jobs which are the chief source of income may be essentially recreation. Cooking, dressmaking, embroidery, furniture making and other specific activities may fall into either classification. Some indicate that recreation also contrasts with the mechanics of life, such as eating, sleeping, housekeeping and personal care. So recreation is any form of experience or activity in which an individual engages from choice because of the personal enjoyment and satisfaction which he receives. This concept emphasises the personal native of recreation and indicates why recreational activities are as diversified as the interests of man.

Moreover, for others, work (as commonly defined) is recreational. It is recreational if these people are not obligated to " work" and if the work is, in and of itself, rewarding. Recreation also includes the notion non work activity, replenishment, change from the routine, pleasure and all the other ingredients commonly attributed by recreation. Hence there is no sharp line between recreation and other activities. The same activity may be work at some times and recreation at others. The recent outcome is the one that suits the Egyptian society most. For example, Egyptians usually enjoy eating while engaged in other recreational activity, specially the passive and for most Egyptians, work is done while socialising.

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[1] Gray, D. E. (1972), Exploring Inner Space, Parks and Recreation, vol. 7 pp. 18-19, 46.
[2] Jubenville (1975), quoting Webster's New International Dictionary (2nd edition), page 3
[3] Dumasedeir, J. (1967), *Towards a Society of Leisure*, Collier-Macmillan, London.

A more pragmatic behavioural definition is thus, 'the demand for opportunities to participate in activities that might provide desired mental characteristics and fulfil the psycho-physiological needs'. The benefits of this behavioural definition over the traditional economic counterpart is its ability to improve the handling of latent needs, substitutes, environmental influences and the benefits of outdoor recreation.

As a word, "recreation" in the western context derives from Latin, 're' which means 'again' and 'creare' which means 'create', 'produce'; in other words to recreate or regain something.[1] While in Arabic there are several synonyms for the word recreation which is commonly used. These are 'Tarfih' , 'Foseha', the first is derived from the word 'rafah' which means tenderness and goodness of life. The word 'tarfih' stems from the verb rafah tarfeeh, it means the seeking of rest and relaxation for the self and the seeking of disappearance of distress and tiredness.[2] While Foseha is driven from the verb fasah, which means augmentation. It indicates to spending a portion of time in a wide place.[3] Recreation embodies other terms that need to be defined. These terms will be broadly defined through the followings:

2.1.1.1 Outdoor recreation.

2.1.1.2 Open spaces for recreation.

2.1.1.3 Recreation and socialisation.

2.1.1.1 Outdoor recreation:

By definition, outdoor recreation is leisure time activities which utilise an outdoor public or private space. In other words, outdoor recreation is simply recreation that is typically performed outdoors, which is opposite to that takes indoors. As such it mostly contrasts with the various forms of recreation typically carried on indoors. There are some borderline activities, that can take place either outdoors or indoors, some of which are eating, talking, sitting most of which are passive activities. Others are devoted either to one of them and cannot exist in the other as football games. Some kinds are best carried on where the natural landscape has had the minimum modification. Others require extensive investment. Outdoor recreation obviously requires space and resources, sometimes large quantities, for its enjoyment. The importance of outdoor recreation spaces in any city is revealed by Bacon, "a city is defined by its outdoor spaces and what happens in them."[4] Undoubtedly, outdoor recreation means many things to many people and range from the simple leisure of sitting quietly beside a lake enjoying a pleasant view

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[1] Blom, Holger, (1966), Planning for Recreation, in Clifford R. V. Tandy, (ed.), Landscape and Human Life: the impact of landscape architecture upon human activities, Djambatan publishers and cartographers, Amsterdam.

[2] Jadallah, Yaser O. (1985), *Wasaeil Al Tarfieh: Mayahelou Menha wa Mayoharrum,* (Means of Recreation: What is Allowed and What is Forbidden), Dar Al-Da'wah, Alexandria, p.17

[3] *Lessan El Arab* (The Arabs' Tongue) and *Al Kamous Al Moheet* (The Spacious Dictionary)Madet Fasah.

[4] Bacon, Karin (1981), Street life in activities, in Taylor, Lisa (eds.), Urban Open Spaces, The Smithsonian Institution, second edition.

to the sophisticated excitement of racing across the same lake in a high powered boat or from the rare experience of standing quite alone on a mountain top to the more common place of swimming in a crowded beach.

In the Western context there are major differences between the concepts of outdoor environment for recreation, as gardens and various types of parks. This variation is based on scale, areas, facilities and distances. On the other hand, Egyptians use the term garden *'Al Geniena'* or *'Al Hadeeka'* for all terms of green outdoor spaces with no consideration to their variations. In their culture, the garden is constantly sited in the Qur'an as a symbol for paradise, with shade and water as its ideal elements. 'Gardens underneath which rivers flow' is a frequently used expression for the bliss of the faithful and occurs more than thirty times throughout the Qur'an. Gardens are outdoor places designed by man which induce in the beholder a sense of well-being. In the thesis the word garden will be used pointing to any area of public land set aside for aesthetic, educational, recreational, or cultural use.

The U.S. Outdoor Recreation Resource Review commission defined outdoor recreation as 'leisure-time activity undertaken in a relatively non-urban environment characterised by the natural setting for the primary purpose of enjoyment and physical or mental well being.'[1] Such definition could not be applied to the Egyptian context as will be cleared later. Within the Egyptian context the words *'Akhroug'*, *'Atmasha' and 'Ashem Hawa'* are commonly used for outdoor recreation. The first is to go outside, the second is going for a walk; even if it could be by car, and the third means breathing some air. The previous terms all mean the outdoors.

2.1.1.2 Open spaces for recreation:

In the Islamic period, the *'Maidan* ' was the main public open space for outdoor recreation, while the *'Housh'* or the house garden represented the private. Due to, the technological revolution, the high population and Egyptians' love to the Nile and horror of the desert, the urban form of Egypt changed greatly. Houses no longer have these private gardens and the urban fabric no longer fulfil peoples' recreation needs which where fulfilled in these gardens or in the Maidan. Hence after the western influence, outdoor recreation became very popular. Now-a-days, it is quite common for Cairenes seeking outdoor recreation to crowd in a place like the zoo.

[1] U.S. Outdoor Recreation Resource Review Commission (1962), *Prospective Demand for Outdoor Recreation O.R.R.R.C. Study Report 26*, Washington DC.

2.1.1.3. Recreation and socialisation:

Recreation is social as well as existential. It does not only take place in the mind but also in the social world. The importance of understanding the social system for the sake of outdoor recreation is strongly cited by Carr and Lynch, "To design open spaces well, one must understand how the social order is developing -no small task."[1] From a systemic or structural perspective, the society is made up of a limited number of social institutions that are integrated in such a way as to provide for the maintenance and stability of the system. These institutions include, the economy, government, family and religious places (specially in traditional societies). The function of each is its contribution of the system and so affects recreation as a behaviour. The functions of the family in Cairo, as an example, represents the corner stone of the whole society, so recreation is a whole family experience. For Egyptians, religion is a way of life, and Islam encourages recreation in many forms, for the benefits of the society. Islam has always encouraged its followers to look beyond the present and to make provision for the future welfare of the community.

Within the social institutions, individuals take their positions in the roles that together make up the institution. These roles are behavioural expectations associated with positions, they are learned in the process known as "socialisation" and together make up the basic social structure of the institution. For example, in an activity as any physical sport, the participants not only learn what is expected of them in their sport's role, but also the reciprocal behaviour that can be expected of those in the role of opponents and trainer. Although individuals may define and enact roles somewhat differently, there are limits to those role definitions that we may cross only at the risk of penalty or sanctions. Bearing in mind that, space for outdoor recreation may allow some of 'letting loose' in a behaviour but with little regard for the outside world. People can quarrel, stare in space, shout to a friend or concentrate on kicking a ball with little concern for side involvement. All these deviations in behaviour are within limits that vary greatly throughout and between societies. From this perspective, the potential problem of the disintegration of the system is rendered unlikely by the general agreement on value orientations engendered through the nurturing, socialisation and learning processes of the system's institutions. Change in the system tends to be gradual as a response to inconsistencies created by innovations or external pressure.

The provision of recreation services could be viewed as a social service system or subsystem, which provides important and necessary inputs to the total social system. These inputs can help maintain the integrity or homeostasis and/ or promote the growth and development of individual members of society.

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[1] Carr, Stephen and Lynch, Kevin (1981), Open Space: Freedom and Control: use is an indicator of social growth and change, in Taylor, Lisa (eds.) Urban Open Spaces, The Smithsonian Institution, second edition.

2.1.2 Leisure:

Generally speaking of leisure and recreation, confusion often arises from the indiscriminate use of both terms. Any research dealing with free-time, leisure and recreation has to face the challenge of defining leisure. There is no paucity of definitions; indeed the problem stems from too many of them. Despite this fact, leisure can be defined in a simple but yet comprehensive way. Leisure is defined as any portion of an individual's activities, which is largely discretionary time, to be used as one chooses. It excludes existence, and time spent is socially or group determined activities in which the individual would prefer not to participate. These categories are not completely watertight. Time for existence, if the latter is strictly interpreted, is fairly clear, yet time spent in eating may be for pleasure as well as existence. Many people regard leisure as freedom from work whilst others view it as an instrument of social control; a strong symbol; or organic necessity; a state of calm, quiet, contemplative dignity; or spiritual, aesthetic, cultural condition. Leisure has multiple meanings as well as a wide spectrum of activities and environments. It is multidimensional and multivalent.[1] To sociologists, planners and recreational managers, leisure is a concept of time, the time left over after all life's obligations, when we are, in Kaplan's words; 'freest to be ourselves' [2]. If leisure is a period of time then any activity within that time can become a basis for leisure.

The most common definition of leisure is by Neulinger, where leisure is defined as either objective or subjective.[3] Objectively, leisure may be defined as time left over after work. The subjective definition denotes a subjective state of mind, or as it has been stated elsewhere: leisure is a person's own perception and inference of quantity and quality of activities.[4] Therefore leisure becomes subjective perception of an actual or imagined activity a person participates in at a given time. Leisure, as a word, is poignant; to the Greeks a quality of life, to the Puritans wasted time and to a twentieth century visionary a wave crashing over our shores.[5] The word leisure in Arabic means 'Wa't El Faragh'. Wa't is time and El Faragh from an Islamic point of view means "the state of being free from any worldly works or hindrance that may prevent the person from working in hereafter's matters."[6]

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[1] Kelly, John R. (1983), *Leisure and Recreation Studies 1: Leisure Identities and Interactions*, George Allen and Unwin, London.

[2] Kaplan, M. (1960), *Leisure in America: A Social Enquiry*, John Wiley and sons, New York.

[3] Neulinger, J. (1974), *The Psychology of Leisure*, Springfield, III. : Charles C. Thomas.

[4] Iso-Ahola, S. S. (1976), On the Theoretical Link Between Personality and Leisure, Psychological Reports, no. 39, pp. 3-10.

[5] Dower, M. (1968), *Fourth wave- A Challenge of Leisure*, Civic Trust.

[6] Al Qardhawiy, *Al Wa't Fi Hayat Al Moslem*, (Time in Moslem's life), Al-Dar Al-Baydahaa: Dar Al Marefa. p.15.

From the previous definitions of leisure and recreation, both terms were more clarified so no confusion can occur whenever they are used. In summary, recreation refers to the behavioural activity participated for refreshment and the goodness of body and soul. This could take place any where, at work, home, gardens, cinema, etc. It can happen any time at obliged work time, free time or leisure. On the other hand, leisure is the time that people plan to do recreation in, it is the non-obliged time that does not include work or any duty towards self or others. Giving an example to clarify such difference, a person can work and enjoy working this could be recreation. The time in which he worked and recreated is not leisure.

2.2 The Theoretical Approach of Recreation:

Appealing to the theorists and researcher, acceptance of behaviour definition of recreation requires a quantum shift in the attitudes and understanding of open space for recreation planners and managers specially in Cairo. In a general sense, Driver and Brown helped to bridge this gap by the formulation of recreation opportunity hierarchies that perceive demand as expressed at four levels along a continuum of awareness and ease of measurement. At the fear of over simplification, these levels can be listed as: the demand for activities, the demand for situation attributes, the demand for perceived satisfaction and the demand for subsequent benefits. Examples of the applications of the behaviour approach are becoming more widespread and it has been more adopted as the basis for recreation planning in many countries as the United States and Australia.[1]

The foundations for modern outdoor recreation planning was, to a large extend, set down by Clawson and Knetsch.[2] They described the nature of an outdoor recreation experience as consisting of five phases: 1) The anticipation, including planning, (2) The travel to the site and its associated (dis) satisfaction, (3) The on-site experiences including activity participation and satisfaction gained, (4) the return travel and (5) The recollection of one or more aspects of the total experience. This concept of the nature of outdoor recreation had intuitive meaning and became widely accepted.[3] A context for outdoor recreation planning was thus proposed. Planning could be concerned with all five phases of the recreation experience and include the demand for the resource.

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[1] Researchers like, Witt, P. A. and Bishop, D. W. (1970), "Situational Antecedents to Leisure Behavior", Journal of Leisure Research, vol. 2, no. 1, pp. 64-74 and Brown, P. J. and Haas G. E. (1980), "Wilderness Recreation Experiences: The Rawah Case", Journal of Leisure Research, vol. 12, no. 3, pp. 229-241.

[2] Clawson, M and Knetsch, J. L. (1966), *Economics of outdoor recreation Resources for the Future*, Inc. Baltimore, The John Hopkins Press.

[3] This concept will be later used in the research.

Other research expanded the behavioural nature of the outdoor recreation experience and developed postulates that differentiate recreation forms of human behaviour.[1] Some described recreation as an experience resulting from recreation engagement to obtain some goal, objective or need satisfaction. Others identify the criteria to be met if an action or engagement to be considered as recreation. These criteria for recreation engagement requires: (1) The commitment of energy, time and personal resources, (2) The participants to make a personal and free choice, (3) The engagement to be self-rewarding and an end in itself, and (4) The engagement to occur during non-obligated time. Each postulate received considerable attention[2] and has, over the last decade, received wide spread support.

From this brief discussion it becomes obvious that outdoor recreation has both a complex and diverse nature. This can lead to differing perspectives being taken in the assessment and planning for outdoor recreation. The question of assessment requires clarification of recreation demand can be fully understood through describing the theories and concepts which dealt with recreation.

Since research concerning outdoor recreation is a new direction in Egypt, it is advisable to name the western theories and concepts. These concepts will help to understand the nature of recreation in most societies while the difference will be through its components. The various approaches of planning for recreation could be classified into two main approaches, the descriptive and the explanatory. The former, the traditional approach, is concerned with the environment and the recreation activities participated, while the latter is more devoted to the behavioural aspects of recreation.

Some researchers, e.g. Jan Gehl, when dealing with recreation focus on activities relating them to the environment.[3] Others like Knopp handles recreation from two major components: 1)Activity or form 2)Place or environment.[4] He concentrated more on the environment, based on the view that the environment may be more closely related to the functions or satisfactions derived from recreation than are activity or form. Others like London, Crandall and Fitzgibbons deal with the three approaches of, 1)activity or setting, 2)persons, 3)reasons or needs.[5] For Klausner, recreation is dealt with , in terms of a social context. This context seems to embody a group which, on the one hand, is wider

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[1] Driver, B.L. and Knopf, Richard, (1977), "Personality, Outdoor Recreation and Expected Consequences", Environment and Behavior, Vol. 9, no. 2, pp. 169-193.

[2] See research by Ragheb and Beard (1982), for the examination of free choice and leisure attitudes.

[3] Gehl, Jan (1987), *Life Between Buildings, Using public space*, Van Nostrand Reinhold Company, New York.

[4] Knopp, Timothy B. (1972), Environmental Determinants of Recreation Behaviour, Journal of Leisure Research, 1972, 4 pp. 129-138.

[5] London; Manuel, Crandall; Rick and Fitzgibbons; Dale (1977), The Psychological Structure of Leisure: Activities, Needs, People, Journal of Leisure Research, Vol. 9, No. 4 pp. 252-263.

than the primary group of a particular family, but which, on the other hand, is narrower than the community of common economics interest, the network of occupational groups.[1]

Schreyer and Knopf[2] have extracted six concepts for leisure that could also be used for outdoor recreation. First, people value the psychological products or outcomes of a recreation activity more than the activity itself. For example anglers do not go fishing as much for food as for the opportunity to relax, achieve and socialise. In Egypt families are expected not to go to outdoor open spaces as much for individual benefits, as for the sake of their children.

Second, recreation participation is a complex set of behaviours engaged in to obtain a range of outcomes. People pursue an activity in search of multiple goals: for instance one may play an active sport not only to share an experience with friends, but also for some exercise and escape a stressful home environment. Within this broader package of goals, some are more important than others in a given situation.

Third, people engaging in different activities seem to be searching for different mixes of outcomes. For example, people who play any sport game could be searching for winning, sport's fitness or the challenge of self and others.

Fourth, while differences across activities are significant, profiles of motives among participants participating in the same activity are not entirely homogeneous. On the same park, for example, one participant could be searching for opportunities for challenge, while another could be searching for relaxation. The general view is that people pursuing the same recreation activity, but having different motives, will prefer different environmental settings.

Fifth, recreation satisfaction is seen as the degree to which desired outcomes are actually realised while participating in a recreation experience. If an environment setting does not offer a participant the desired mix of opportunities for need fulfilment, he or she will turn to alternate settings in search of a more rewarding experience.

Sixth, participants vary in the amount of importance they attach to the goals they are pursuing. Some place more weight on the fulfilment of specific needs through recreation, while others may engage with less serious intent.

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[1] Klausner, Samuel Z. (1976), Recreation as a Social Action, in Harold M. Proshonsky, William H. Ittelson and Leanne G. Rivlin, Environmental Psychology: people and their physical settings, 2nd edition, p.p. 418-432.

[2] Schreyer, Richard and Knopf, Richard C. (1984), The Dynamic of Change in Outdoor Recreation Environments- Some Equity Issues, Journal of Park and Recreation, 1984.

From the previous six conditions, Schreyer and Knopf, put more stress on the importance of the outcomes of the recreational experience. These outcomes seem to drive and motivate people at the same time as satisfy them. Also, from these six components, a new perception of recreation behaviour arises. It could be concluded that the demand at any moment for outdoor recreation, as a public service, can be construed as the summing of the recreation properties of the people.

Activities and outdoor recreation facilities are related by the degree to which the technological requirements of activities and the facilities can be met by the characteristics of facilities. Two steps then to could be taken: first, to investigate the nature of the three elements: the reason of participation, people and outdoor recreation activities including facilities. Second, is to explore the interactions among them. This is considered as a non complete study, because it lacks the physicality of outdoor space.

Outdoor recreation often requires space and resources, it depends largely on the physical environment and what kinds of activities it affords, to fulfil people's attitudes and needs of activities. In other words, outdoor recreation implies a personal interaction between an individual and the environment. The latter has been recognised as an important element contributing to recreational choice and demands. Moreover, there are differences in outdoor recreation from community to community related to resources, climate and cultural interests. So, the outdoor environment is considered as another dimension that should be taken into account.

In conclusion, the different approaches for planning for recreation could be summarised to two main ones; the descriptive and the explanatory. The descriptive approach is the former which focuses on the materialistic substances as the environment and activities. Both substances neglected the reason of participation. On the other hand, the explanatory focuses on the behavioural recreation. Both approaches dealt with the different factors. The research focuses on the importance of dealing with factors and combining all in a multi-tudinal equation.

Despite the wide acceptance of such theories and approaches, outdoor recreation planning requires a more pragmatic approach. Consequently outdoor recreation has been approached as a schedule of facilities and activities which has been used as the basis for public planning. Such pragmatic approach had the advantage of facilitating the identification of participation behaviour in terms of 'when, where, who and how long'. Past activity participation has also been assumed to be an acceptable surrogate for demand. The end result of this activity based approach was to focus on recreation supply and a trend to ignore demand. Standards for recreation provision are the formalised

expression of this assumption. However as pointed out by Driver[1], such approach failed to identify the motives for participation, the satisfaction or rewards received, the quality of recreation, nor the hidden demand due to the lack of opportunities. Further it was assumed that the supply of recreation activities would adequately address potential user's preferences and at times, generate its own demand.

Summing up the outcomes of the previous researches and theories, the factors affecting recreation as a behaviour could be limited. In brief, Schreyer and Knopf research concentrated on the psychological dimension and outcome of recreation. Jan Gehl and Knopf focused their research on the relation between behavioural activities and the physical environment. On the other hand, researchers as London, Crandall and Fitzgibbons directed their research to activities, reasons and the participants. In the first context, depth was paid more to the outcome and not to factors leading to such outcomes. The second, opposite, dealt with recreation from the descriptive point of view. On the other hand, the third neglected the descriptive.

However, part of the thesis's aim is to investigate why people chose particular outdoor activities to do, what personality needs might be fulfilled by these activities, the motivations; and satisfactions or enjoyment actually desired for outdoor recreation. Individuals can logically be expected to be attracted to and satisfied by outdoor activities which meet their needs. So the fourth step is why people participate in outdoor space, which has been mentioned by Schreyer and Knopf, earlier in this sector. All four aspects interact in an interrelationship process as will be further distinguished.

2.3 The Recreation Paradigm:

In summary and as a result of the previous approaches, it seems much more appropriate that the best way to dealing with outdoor recreation, is through combining the different factors studied through these approaches. These factors could be summarised as, 1) reasons or needs, 2) person 3) the physical environment and 4) activity or setting. In other words, individuals can logically be expected to be attracted to and satisfied by recreational activities in the environment which meet their needs. If activities provide the same satisfaction, they should be also substitutable for one another.

A way of looking at all four of the above approaches is to use an interactions perspective. In psychology it is now relatively common to acknowledge that behaviour is caused by the interaction of the person and the situation more than by either one alone. It could be looked at the interactions of people by needs by outdoor recreation activities by

[1] op cit., Driver (1977).

environment keeping in mind how these affect each other. For example, Knopf cleared how, through his state that " people with different motives were reacting to the same environment features in different ways and feeling differently about what kinds of settings managers should be offering."[1]

As mentioned earlier, the research will deal with four determinants affecting and forming both approaches, descriptive and explanatory, through the followings:

2.3.1 The reasons' factor will be deduced from the 'Why' question. It would look at the psycho-physiology of recreation experience, which embodies factors as motivations, needs, and the expected satisfactions.
2.3.2 The participants as a factor will be presumed from the 'Who' question. This approach might look at the participants' socio-cultural characteristics, i.e. population, personality, life cycle differences, social class, or demographic characteristics.
2.3.3 The environment factor answers the 'Where' question. Such approach deals with the socio-physical environment. The physical represented by the surface features and landscape aspects, while the social environment tackles groups and social interactions between participants.
2.3.4 The activity determinant is concluded from the 'How' question. It would look at the participated recreation activities, through their categories, form, pattern and mix.

All four factors happen in space through the dimension of time. Not only time that affects the nature of recreation, but some other factors such as economics and management. For a number of decades the definition of outdoor recreation has had a strong link with economic theory. The foundation of this link is the view that when visiting an open space for recreation people weigh the costs of the visit against the cost of alternate other goods and services.[2] In this economic context recreation demand was defined as the participation levels at a given time and in a given place under specific sets of conditions and assumptions about an individual's characteristics and the availability of recreation resources. The sum of an individuals' demands was considered aggregated demand. This perspective of recreation indicated demand measures of what people do, the amount of recreation consumed and the price paid but it does not attempt to measure their psychological or emotional reactions. Concerted attempts have been made to establish such measures and re-define outdoor recreation demand to incorporate such reactions. Figure (2.1) shows the paradigm of outdoor recreation and how the four components are interrelated forming the main concept.

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[1] Knopf, R. C. (1987) Human behavior, cognition, and affect in the natural environment, pp. 783-826 In D. Stokols and I. Altman (eds.). Handbook of Environmental Psychology, Vol. 1. New York: John Wiley.
[2] op cit., Clawson and Knetsch (1966) p. 45.

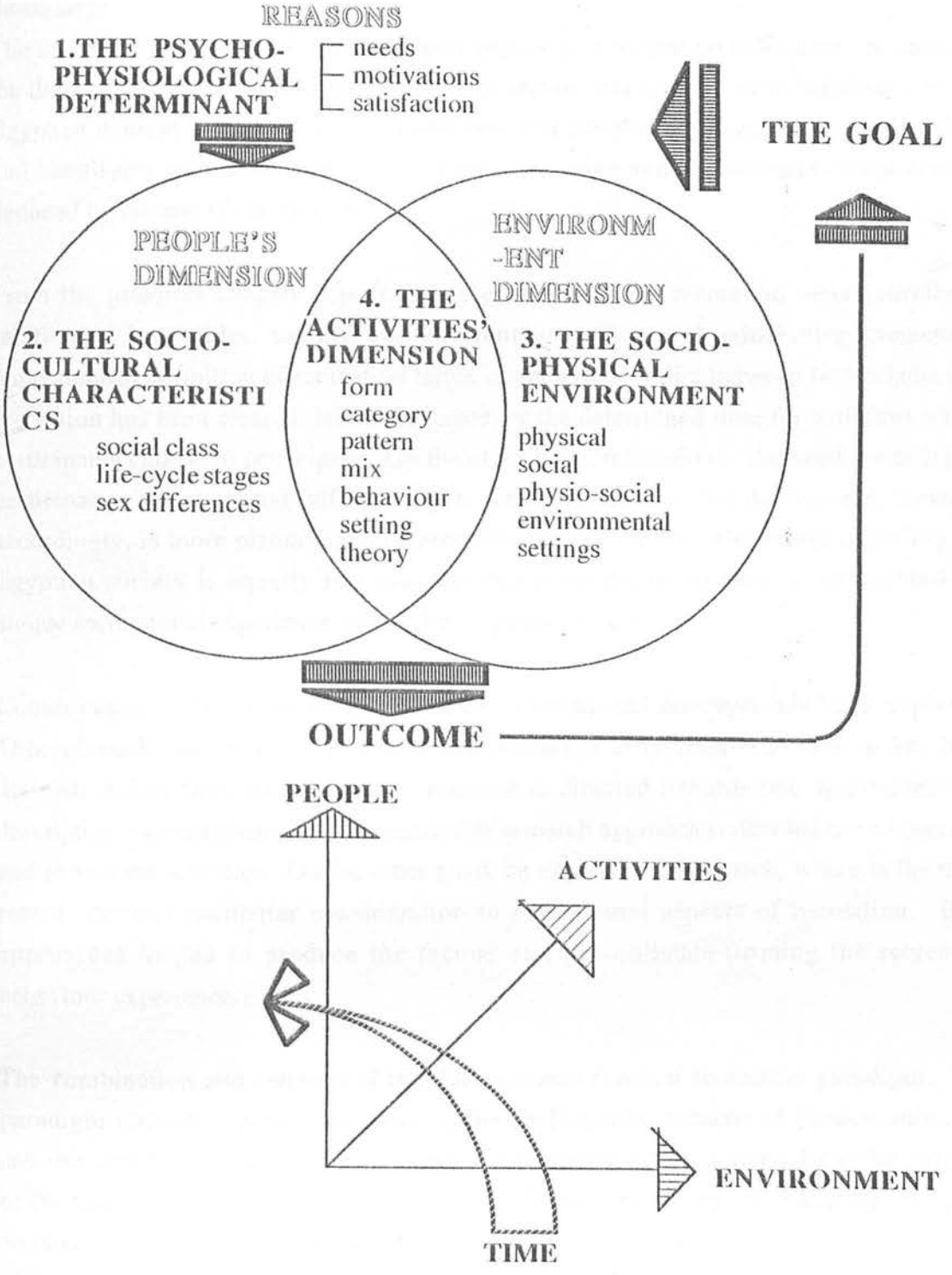


Fig.(2.1) The paradigm of recreation

The previous comment outlines a method of analysis which makes it possible to look at each of the four areas above and their joint importance. Although this area is complex, it can be integrated with this general approach and each of the four determinants can be used separately as long as there is an awareness of the others. These are separable analytically (although with more difficulty in reality) so that the nature and role of each could be considered and either interrelationship. The paradigm of outdoor recreation will be discussed and related to the Cairenes society in the forthcoming chapters.

Summary:

The second chapter pursues the theoretical approach of recreation behaviour. It starts by the theoretical definition of some terms of recreation and relating such definitions to the Egyptian context. Recreation theory and research are also explored. A way of dealing and identifying recreation design with respect to culture and environment components is deduced by the end of the chapter.

From the previous chapter it is found essential to define recreation behaviourally in relation to both sides, culture and environment. Research concerning conceptual philosophical definition of recreation terms is studied. Conflict between both leisure and recreation has been cleared. leisure is meant by the determined time for activities which participants choose to participate. On the other hand, recreation is the need for activities participation which would fulfil the psycho-physiological need of participants. Leisure, accordingly, is more planned and determined than recreation. Definition regarding the Egyptian society is equally important so that it would be possible to understand the unique recreational experience within the Egyptian society.

Consequently, a literature review to some research and concepts has been explored. Through such review a broad perspective definition of recreation behaviour has been defined. It has been concluded that research is directed towards two approaches; the descriptive and explanatory. The descriptive research approach is devoted to environment and recreation activities. On the other hand, he explanatory approach, which is the more recent, devotes particular consideration to behavioural aspects of recreation. Both approaches helped to produce the factors and determinants forming the recreation behaviour experience.

The combination and relation of the determinants forms a recreation paradigm. The paradigm embodies four determinants; the participants, reasons of participation, the environment and the recreation activities. The identified determinants form the chapters of the second part of the research. Moreover in the forthcoming chapters, the Egyptian context of the four determinants will be theoretically postulated.

PART TWO
II. THE RECREATION PARADIGM

PART TWO

II. THE RECREATION PARADIGM

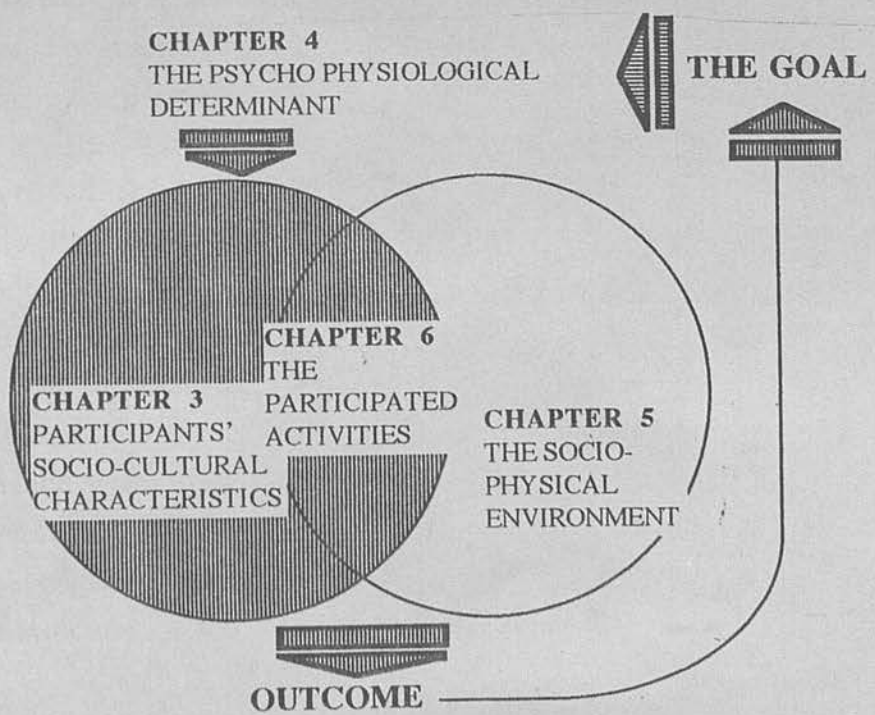
Introduction:

The recreation paradigm, deduced from the previous part, will be analysed through the second part of the research. The paradigm suggests a numerous inter-relating factors that are embodied within its four determinants. The relation between the factors will be investigated in order to obtain an integrative frame work for the spatial behaviour in open spaces for recreation. In addition, the second part will theoretically identify these factors with reference to Cairenes' recreation experience. The part will end by selecting the suitable methods for analysing and quantifying the determinants of the paradigm, in order to bridge the gap between the descriptive and explanatory approaches of designing for recreation.

To achieve the aim of the second part it will embody four chapter, each represent the exploration of one of the determinants. Chapter three, in the research, will represent participants' socio-cultural characteristic and its variable factors; life-cycle stages, social-class differences and sex differences. Chapter four will explore the explanatory approach; the psycho-physiological determinant which drive participants to participate in recreation; needs, motivations and expected satisfaction. The third determinant, the socio-physical environment, will be investigated in chapter five through both the physical and social in addition to the relation between both. Finally chapter six will deal with the participated activities through form, categories, mix and packages.

The second part will end by selecting the methods for the analysis and quantification of the determinants. Driver's pool scale of motivations for outdoor recreation will be used for the quantification of the explanatory approach, the psycho-physiological determinant. On the other hand, behaviour setting survey will be selected for analysing the descriptive determinants; participants' socio-cultural characteristics, the socio-physical environment and the participated activities. The capability of both methods will be examined through their application to a selected case study in "Cairo" through the forthcoming part.

CHAPTER THREE:
3. PARTICIPANTS' SOCIO-CULTURAL CHARACTERISTICS



THE RECREATION PARADIGM

CHAPTER THREE

PARTICIPANTS' SOCIO-CULTURAL CHARACTERISTICS

The People

The cornerstone of recreation must be concerned first, foremost and always with people, not just resources, buildings and facilities, but with the human rights, the dignity and the uniqueness of the individual. Although recreation is highly personal, it can be significantly affected by the actions of others. Being highly personal, the level of the recreation experience will vary from person to person even though they might be subjected to the same external condition. This variation is due to several interrelated factors some of which are the cultural, behavioural, life- cycle stages, family and life-styles. Although both class and life - cycle stage appear to be the most important factors in the variation of people; other aspects as the education, regional, ethnic, cultural and urban- rural interaction variation should be noted.

The importance of individuals stems from their representation of the smallest nuclear part of any society. Recreation has functions in the life of an individual and its experience by individuals while group have functions for the society. Relationship among individuals, representing the smallest nuclear part, exist within larger macro structures. Any change in the socio-economic characteristics of the smallest nuclear will hence affect the whole structure. Figure (3.1) shows the relation between people and both the micro and macro structure of a society.

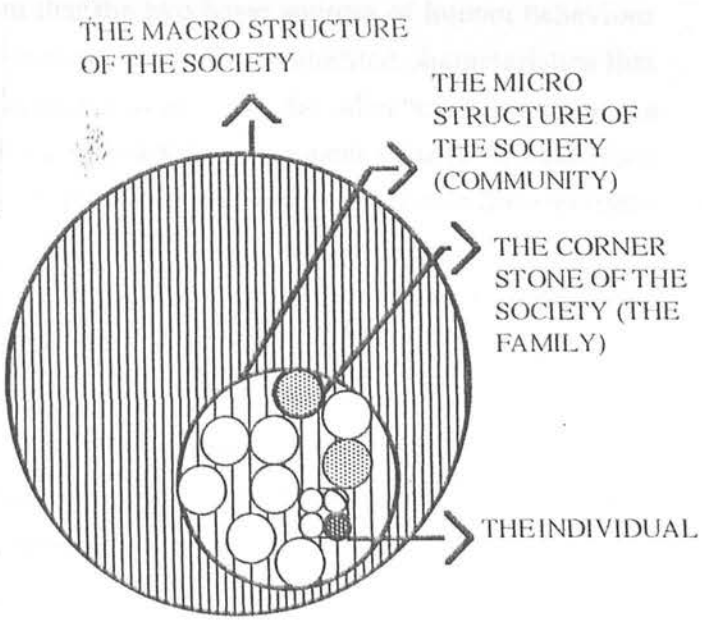


Fig. (3.1), The macro and micro structures of a society.

Individuals will be represented in chapter three as the first determinant of the paradigm of recreation. Individuals within the context of the research refers to Egyptians and Cairenes in particular. Accordingly, before deducing the determinants which symbolise the socio-economic dimension of participants and relating it to the Egyptian context, a broad definition for the Egyptian should be first mentioned. Following such focus are the socio-economic factors that influence participants' behaviour in recreation. Such factors will be deduced, analysed and then related to the Egyptian context guided by the general focus.

Accordingly, chapter three is divided into two parts. First is a general review of Egyptians' perception of open spaces and the term recreation. Second is the socio-demographic characteristics of participants which affect their behaviour in open spaces.

3.1 Authenticity of Recreation in Egypt.

3.2 Recreation and Participants' Socio-demographic Characteristics.

3.1 Authenticity of Recreation in Egypt:

Zube stated that "Egypt is one of a very few countries in the world without national parks or nature preserves. Developed and third-world countries alike have instituted conservation and landscape preservation programs. Why Egypt has been one of the last countries to develop such program is undoubtedly a complex question."[1] What Zube referred as a complex question should be answered first by other questions. Do all countries have to have national parks? If so, why does Egypt does not have such parks? And if not what are the disadvantages? To answer these questions, there should be first a study to Egyptians' behaviour, perception and beliefs towards open spaces for recreation.

From chapter one it has been cleared out that the two basic sources of human behaviour are instinct and learning. Instinctive behaviour stems from inherited characteristics that cause us to perform, respond or act in certain manner. On the other hand, learning, the second source of behaviour, is defined as a relatively permanent change in behaviour which is the result of experience or practice of the individual. The latter differentiates people between and within a society, which could be known as the life-style within a society. The analysis of the two forms of behaviour will be mentioned with reference to the Egyptians through two main points. Firstly, defining what is known as "Egyptianity". Secondly, examining Egyptians' present perception and attitude towards open spaces for recreation. Such a task would require a sound knowledge for the inherited values that formed the instinctive behaviour. Subsequently, the authenticity of outdoor recreation in Egypt will be studied through the followings:

3.1.1 Egyptianity.

3.1.2 Egyptians' Perception of Open Spaces.

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[1] Zube, Erwin H. (1983), A Cultivated Dislike for the Egyptian Desert, Landscape Architecture, Nov.-Dec., p. 83.

3.1.1 Egyptianity:

It can only be invidious to attempt a thumbnail sketch of about 55 million people, two-third of who are illiterate and lead a very simple life, while the remainder include highly sophisticated, highly educated city people who have little in common with their peasant fellow-countrymen. The natural or innate character of Egyptians is altered in a remarkable degree by their religion, laws, and government, as well as by the climate and other causes. To form a just opinion of such character, therefore, is not easy.

Egypt is an Arab-Muslim country with great history that lies north east Africa by the Mediterranean sea. Accordingly, will Egyptians be considered as Arabs with Islamic beliefs, Mediterranean, African or Pharaohs? Neither Egyptian intellectuals, educational and cultural leaders, nor the State have resolved the question. What national culture for Egypt? Are they Arab, Muslim, African, Pharaohs or plainly Egyptians or a combination of all these? For the research, it seems much more appropriate to classify Egypt as a Middle East country that lies within the arid zone with an African location, a Mediterranean affection, Muslim religion and Pharaonic history. The personality of its occupants will be pointed out as Egyptianity.

Of the leading features of their Egyptianity none is more remarkable than their religious pride.[1] In Egypt, the socio- culture considerations are products of strongly held religious beliefs. These religious beliefs are the source of internal and spiritual forces that kept the Egyptian character strong against all influences, illness and intruders.[2] They are patient, peace-loving, long- suffering and prepared to accept most of the ills befalling them with a stoic fatalism which has stood them in good stead for many miserable centuries. They have been almost too ready to accept any trouble that comes to them as the will of Allah.[3] Their religious psychology has remained the same throughout the years. Rather than being ritualistic, their religion has always been a source of solace and a mean of social interaction providing them with a psychologically satisfactory formula for a relatively contented existence and sanity.[4]

Whether it is a result of their religious pride or their long history, Egyptians have strong binds to their land. Their intense pride in being Egyptians is due to a mixture of satisfaction at being descendants of the founders of civilisation and their attachment to the Nile Valley which makes it very difficult for them to sever their links with home. This

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[1] Lane, Edward William (1989), *Manners and Customs of the Modern Egyptians,* East - West publications, third edition, p. 277, Mohammed Abdel-Baset, (1971), Some Aspects of Values- Conflict in Egypt, Peasantry Families, The National Review of Social Sciences, January, no. 1, vol. 8, pp. 71-87, also see Amar, Hamed, (1954), *Growing in an Egyptian Village*, Routledge and Kegan Paul, London.

[2] Foad, Nemat (1978), *Shakhsiat Misr,(The Character of Egypt),* page 80-90.

[3] Kay, Shirly (1975), *The Egyptians, How they Live and Work,* Douglas David and Charles Limited p.32/35.

[4] Zayed, Ahmed (1990), *The Egyptian National Character,* The National Centre of Social and Criminological research, Cairo.

love of their country even exists for the Bedawees; those who live in the desert. The Bedawees are so attached to their desert, and have so great a contempt for people who reside in towns and for agriculturists, that it is a matter of surprise that so many of them were induced to settle even upon the fertile bank of the Nile. The Egyptians, though mostly descended from Bedawees, resemble their ancestors in love of their native country, but have a horror of the desert[1]. For most Egyptians, desert is a symbol of death, most Egyptians have weak personal experience with the desert. The Ancient Egyptians built their tombs in the desert, while on the other hand their life flourished by the Nile. Although the total surface of the modern state of Egypt is over 363,000 square miles, habitable and historical Egypt, the Nile Valley and Delta occupy but a narrow strip of land between vast deserts.[2] This was due to Egyptians' attitude towards the desert. Hence, to speak of the living Egypt, is to speak of the 15,000 square miles upon which 98% of Egyptians live, work and procreate an area slightly less than 5% of the total surface of geographical Egypt.

In his research[3] Zayed examined some of the under question characteristics of Egyptians that would form Egyptianity. The research has showed that Egyptians maintain limited passive attitudes towards political and economical aspects which is the result of historical character formation. The more Egyptians are involved in their own problems the less they are involved in their society's ones. Patience and independence were found to be largely influenced by being religious. The former was found to exist more in lower social classes. Humorous and cheerful characteristics were not found to be common ones and are traced mainly in the educated people and related to specific zones and areas, e.g. Upper Egyptians were found to be less humorous. The research calls for examination of such characteristics. Trust and suspicious were found to be related to social classes, where members of each class were to trust each other than to trust other classes. It follows that friends and families are to be the most trusted. Egyptians were found also to look for excuses for their faults. Finally contradiction is found to be one of the Egyptians personal characteristics, and was more observed within the limited educated and middle social classes.

The above characteristics which have been cited by researchers are questioned in some terms, because of all the contrast and differences in contemporary social behaviour. For example, if we consider religion is entrenched in Egyptians' behaviour, as one of the major characteristics early mentioned, the forthcoming questions will in turn rise. Do Egyptians behave in their daily life according to their religious norms and attitudes? Are

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[1] op cit. Lane, Edward William (1981) p. 295.
[2] Vatikiotis, P. J. (1991), *The History of Modern Egypt: from Mohammed Ali to Mubarak*, Weidenfeld and Nicolson, London, fourth edition.
[3] op cit. Zayed, A. (1990).

they being influenced by; media, communication, technology, and alien civilisation? Moreover from a general perception, have research oriented towards identifying Egyptianity attained its objectives? If so are ways of capturing such characteristics suitable for mapping and illustrating their actual behaviour and not their attitudes and beliefs?

From the research point of view, still Egyptians' behaviour needs to be furthered in its sociological and psychological context, which will in turn equip landscape designers and architects with the data required for design and planning. Due to the lack of such definition and for the research objective, such context had had to be explored to set the stage for better understanding of the general social behaviour for the expected participants in the forthcoming selected sample as a case study. Furthermore, through this chapter, the influences that shaped Egyptians' recreation behaviour should be explored, which in turn will help in understanding their attitude towards open spaces and the way they perceive these spaces.

3.1.2 Egyptians' Perception of Open Spaces:

There are three major factors and influences which formed Egyptians' perception and attitude towards open spaces; Ancient Egypt, religion and Western influence.

First, is the Ancient Egyptian concept. Egyptians believe that Egypt was one of the ancient centres of human civilisation, where glories of Pharaonic history are a source of pride, honour, and self- consciousness. Trends such as Egyptianisms and Pharaonism have developed as a result of this feeling. Many words, festivals, social and religious practices have survived from the Ancient period to our day and are shared by both Modern Egyptians.

Religion is the second major component. To understand the socio-cultural aspects of a traditional society as Egypt, religion in these societies should be recognised. Sociologists and psychologists have emphasised the important role of religion in the formation of the social and cultural characteristics of Egyptians as cited earlier. They mostly gain their cultural codes; values, norms, beliefs and attitudes, from religion, which in turn influence their behaviour. Moslems and Christians in Egypt have the same attitude towards religion, being the essential source of behavioural values. Both are shaded under a large umbrella of Egyptianity. They tend to accept sharing celebration of festive and events, e.g. Sham El Neseem. Moslem s now-a-days constitute a majority in Egypt. Accordingly, for the above reasons, the research tended to explore this component of the society.

For Muslims, Islam is not only a code of ethics but also a way of life. It has provided a civic code that has influenced social behaviour and social interactions. As this code evolved, it also modified the cultural foundations and social institutions to the point where the differences between what is required by religious dogma and what is dictated by socio-cultural considerations are obscured. Socialism is also presented in Islamic terms. In the past, for example, social interactions in Moslem societies among men occurred in the market place for business. Islam is seen as an image of what the world should be. It is used to justify change, initiate efforts, explain and legitimise ideologies.

The third aspect is the Western influence. By the end of the eighteenth century, and through the French expedition headed by Napoleon Bonaparte, came the first contact with Western ideas. This expedition was included with a large number of scientists. Although the expedition lasted for less than two years, some of the scientific research institutions created then still remain. However the impact of Western ideas on life styles and social values did not become a significant factor affecting city planning until the 1870s.[1] By the end of the nineteenth century European values and technology were having a profound impact on the major cities of Egypt. Since the Napoleonic expedition, Egyptian society has been involved in Europe and has been penetrated by European ideas to a great extent and the West has always been present as a menace and a model. Through trade, schools and cultural contacts, Egypt's way of life began a process of transformation. Although the impact of the West has not yet decisively culminated in a settled form, it has its influence over an elite which plays an important role in administering the society.[2] This does not only strongly affect Egyptians behaviour, but also the architecture and urban form of their country.

By the turn of the century, planning and design in Egypt were clearly dominated by the ideas of the Beaux Arts in Paris. The design of houses built for middle and upper class families, was no longer constrained by the traditional social and cultural values of earlier generations and the features which were suitable for the cold winters and mild summers of western Europe were becoming common in Cairo with its long hot summers. By the end of the World War II, the influence of Italian architecture became dominant, and it is difficult to distinguish many of the apartment buildings in northern Italy from those built in Cairo.

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[1] Toulan, Nohad A. (1980), Climatic Consideration in the Design of Urban Housing in Egypt, in Gedeon Golany (ed.), Housing in Aridlands: Design and Planning, the Architectural Press, London, Halsted Press Division, John Wiley and sons, New York, p. 83.

[2] Dessouki, Ali, The Mass Political Culture Of Egypt: A case study of the persistence of cultural traits, The Muslim World.

The followings represent a broad focus on the three main factors affecting and forming Egyptians' perception and attitude towards open spaces for recreation.

3.1.2.1 The ancient Egyptian concept for recreational gardens

3.1.2.2 Islam and recreation

3.1.2.3 The Western influence on the Egyptians' concept of recreation.

3.1.21 The ancient Egyptian concept for recreational gardens:

Egypt is the home of one of the most ancient civilisation of mankind. The beginnings of this civilisation are not our present concern; yet they have some relevance to the modern history of Egypt. A brief glance at the ancient origins may help in understanding the recent developments. Although the Greek philosophers may have discovered recreation and its psychological potential, earlier civilisations also recognised recreation and its importance. Kraus notes that in primitive cultures, as the Egyptian, play like activities had many functions. First they had psychological functions, such as increasing solidarity and cohesiveness in tribes, improving communication, enhancing aesthetic pleasure and relaxation.[1] Second, recreation was also used as a way of socialising the young into sex-role patterns: boys through their play, learned strenuous warlike activities while girls were taught household crafts. Another notable characteristic of the ancient Egypt civilisation was that recreation was merely used for cultivation of the mind, either in a more serious way (religious rituals and festivals) or in a somewhat lighter manner (social entertainment). These characteristics not only affected Egyptian's character but also played a major role in their perception and concept of recreational open spaces.

Ancient Egyptians were known for their love of outdoor recreation. Fishing and hunting; e.g. hippopotamus hunting and desert hunting, were very popular as outdoor recreation activities, although more confined to the higher social class. Performance of feasts through dancing, playing music and singing was also participated with pleasure. Board games as the game of draughts, were known to be favoured.[2]

Moreover, from the physical point, Egypt had one very great advantage over the rest of the World. As a cradle of horti-culture, it had, a soil which was annually renewed by the silt of the Nile flood, so that manure was hardly necessary. The Nile coming down from Africa into the Mediterranean passes between the Arabian and the Western Deserts, laying a green road to the sea. Isolated by these barren lands from other contracts, the civilisation was in-turned upon itself and developed remarkable characteristics unmatched elsewhere. The alluvial soil of the Nile was so fertile that Egypt had many periods of

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[1] Kraus, cited in Iso-Ahola, S.S. (1976), On the Theoretical Link Between Personality and Leisure, Psychological Reports, no. 39, pp. 3-10.

[2] Erman, Adolf, (1971), *Life in Ancient Egypt*, Dover Publications, Inc. New York.

great prosperity. Being comparatively isolated it was less troubled with wars against foreign enemies for the early part of its history than other countries of the time, although it had its quota of internal dissension.

Early settlements resembled those of other civilisations but the whole of the country was united just before the end of the fourth millennium BC. and from that time history begins. A method of writing by hieroglyphics was soon discovered. Written records were left in the temples and tombs and many scenes depicted on walls and furniture so that much has been learnt about Egyptian history and customs.

Many substantial houses were built for nobles and many temples erected. The nearness of the hot deserts rendered the shade of trees particularly attractive and every temple had its sacred grove, each specialising in the cult of a particular variety of tree. The coolness of water was also greatly appreciated and the gardens of private houses were well furnished with ponds [Figure (3.2)].[1] The earliest recorded gardens are Egyptians, where the idea of paradise centred on the oasis garden. As water was the precious giver of life to man and the plants and animals he fed upon, it also became the centre piece of his gardens.[2]

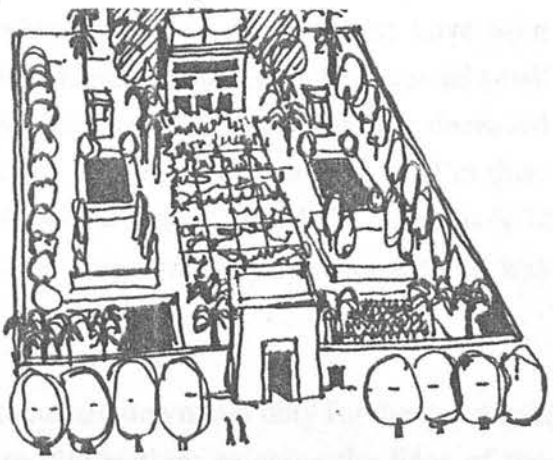

Fig. (3.2) An Egyptian garden with the vineyard and other separate enclosures, tanks of water and a small house.

One of the important eras that should be cited in relation to open spaces of this period is Thutmose the third era. The Pharaoh Thutmose the third was reigned about the middle of the second millennium BC. Before that time, Egyptians' interests did not extend abroad. Although in later time, when conquest has been made in Asia, the Pharaoh Thutmose III brought back foreign plants which he had depicted in his festival hall at Karnak. By this time, ornamental gardening within the limits imposed by the climate and the nature of the buildings had reached a high level of skill.[3] In 1505-1483 BC. Queen Hatshepsut ruled Egypt. She reigned during the minority of Thutmose III. Queen Hatshepsut was interested in importing plants from other countries that thirty-two incense-bearing trees in her garden as well as plants were fetched from Somali land.[4]

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[1] King, Ronald (1979), *The Quest for Paradise: A History of the World's Gardens*, Whittet, Windward, page 17.

[2] Adams, Roberts; Adams, Marina; Willens, Alan and Willens, Ann (1978), *Dry Lands: man and plants*, The Architecture Press LTD: London page 14.

[3] op cit., King, Ronald (1979), page 18.

[4] Hyams, Edward (1971), *A History of Gardens and Gardening*, J. M. Dent and sons LTD, London page 16.

Another great plant-introducer and gardener among the Pharaohs was Ramses III (1198-1166 BC.). He was one of the greatest Egyptian monarch. It is recorded of him that during his reign he gave 514 gardens or garden sites to temples. Also the practice of planting small trees and shrubs in large, decorated earthward vases seems to have developed another of the garden art elements to be copied later by the Roman and Renaissance Italian gardeners.[1]

Not only did the Pharaohs paid attention to the design of open spaces, but also attention was paid to the landscape elements. By a stroke of great good fortune the tomb of Tutankhamen, who ruled from 1361 to 1352 BC., survived until modern times almost untouched. All his grave goods were excellent examples of the use of flowers by Egyptians. The most familiar plants and trees to the ancient Egyptians, are the sacred lotus, the papyrus, the sycamore fig, and date palms. Only in a nation in which a love for flowers and gardens had become part of the national make up would a king have been buried in such a way. The Egyptians loved their gardens so much that they created small gardens around grates and some of their inscriptions seem to imply that the deceased would continue to enjoy his garden after his death. Beside trees, water existed in their gardens. The formal lake which the Pharaoh Amenhotep III (1405-1378 BC.) made in one of his gardens for his queen, was about a mile long and quarter mile wide and was used for ceremonial boating and water festivals.

Consequently, in the matter of design the Egyptians laid down, not only for the thousands of years of their own history, but for two alien civilisations to come the lines of two highly formal and architectural styles. These were the flat, strictly rectangular style given a third dimension by rectangular blocks of trees; and the grand tiered or formal terraces for a hillside site. All of the previous gardens are examples of conscious landscape manipulation.

In Egypt more than any other country in the region, scientific fascination with the history of architecture has centred around the study of temples, tombs and other religious monuments of ancient periods. Indeed, this is largely due to a civilisation that de-emphasised the earthly life thus limiting its lasting monuments to those related ceremonial functions. Whatever the reasons, the end result is that the role of religion in explaining the various relationships between architectural elements has overshadowed all other considerations.

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[1] ibid. Hyams, Edward (1971) page 17.

3.1.2.2 Islam and recreation:

Islam remains the dominant cultural force in the Middle East. Other religious sects, such as the Copts[1] and Jews survive and flourish but they are numerically of small importance and do not have a similar all-pervading influence. Islam has over 400 million believers and is one of the few world religions which continues to win new adherents. Islam was found in the western Arabian peninsula in the early part of the seventh century of our era. Since then the geographical pattern of its spread has been east and west rather than north and south. A great concentration of its disciples lies in the Middle East, but it extends eastwards into India, South East Asia, Malaysia and Indonesia and even in China. Northwards, it stretches from its holy centre at Mecca in Saudi Arabia through Iran, Turkey and parts of what was known as southern Soviet Union. Southwards, Islam reaches into the heart of Africa, from where (until the fifth century) it reached through Spain into central France.[2] Through all these countries Islam has produced an integrated pattern of religion, life style and urban planning which is peculiarly suited to the environmental conditions which prevail in the religion. The diversity of people, of temperature ranges and climates, of social conditions, and of those regions which Islam encompasses is enormous.

The Prophet Mohammed (PBUH) brought the message of the one God '*Allah*' and the rules of Islam are set in the Holy Book, the *Qur'an*. For Muslims, this is the direct word of Allah as revealed to His Prophet (PBUH) through the archangel Gabrielle. The Qur'an gives strict and uncompromising standards for man's conduct in the face of stern and demanding God, and the life on earth is overshadowed by a life in the world to come, and by the promise of an approaching day of judgement for all mankind. Islam is much more than a system of metaphysical beliefs. Every aspect of the believer's life is regulated by the principles of surrender to the will of Allah. In Islam no pleasure is taken at random; each is part of a great unity; every individual aspect of the truth links laterally with other aspects and can be analysed individually to discover its relevance within the whole. For tradition is all in Islam, and its basic truths and laws apply to every artistic aspect of man's endeavours, not least to his buildings, their form and layout, their structure and decoration. The followings are some aspects that Islam impacts upon Egyptians' attitude towards open spaces and green areas:

a) Islam and the concept of open spaces.
b) Islam and nature
c) Islam and the concept of gardens
d) The Islamic recreation behaviour

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[1] Copts in the research are meant by the Christian Egyptians.
[2] Brookes, John (1987), *Gardens of Paradise: The History and Design of the Great Islamic Gardens*, Wedenfield and Nicolson, London.

a) Islam and the concept of open spaces:

The Islamic life is related to types of indoor and outdoor open spaces. Starting by the mosque which should face Mecca, its indoor and outdoor open spaces are functionally and visually integrated in a way that has influenced many other types of open space. The indoor of the mosque is mainly used for prayers at prayer's time, and as a school for learning the Qur'an '*Kottab*' at other times. At the prayer time and when the indoor of the mosque is full, its courtyard is used as an 'over-spill praying area'. When the courtyard is full believers kneel to pray in the adjoining streets. The overflow from indoor to outdoor space heightens the intensity of the religious experience and all spaces work as a one.

The maidan is another courtyard, but a large one. It adjoins the mosque and can serve a wide range of civic functions such as markets, festivals and public meetings. At this time, the maidan represented the main public open space for outdoor recreation activities. In recent times many of the larger maidans have regrettably become traffic arteries and bus stations as a reflection to the technological revolution and the interference of the vehicle on the urban form. Beside the Maidan most houses at this period had a private open space '*Housh*' which represented a source of outdoor space for social gatherings within friends and families [figure (3.3)].

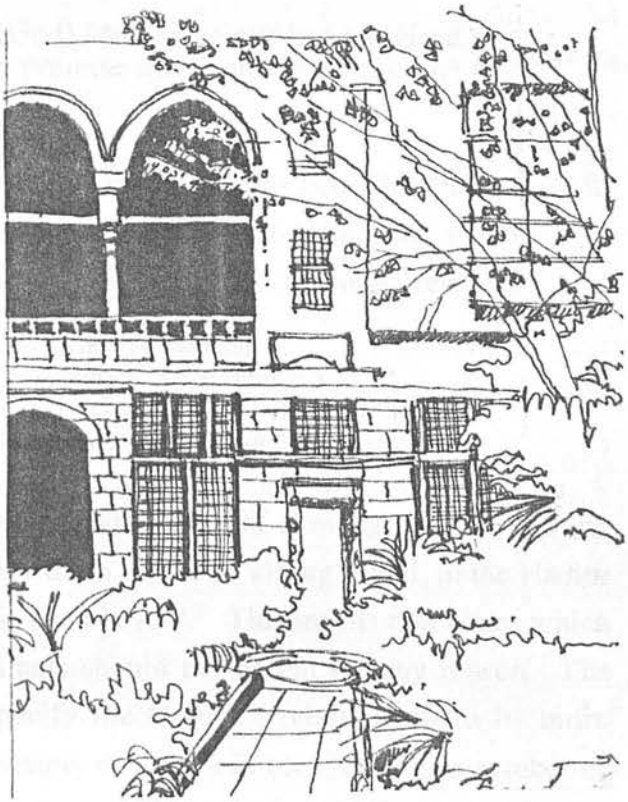

Fig (3.3)The House of El Scheimy in Cairo.

b) Islam and nature:

In addition to Islam's influence on the urban form it has had a profound influence on Muslim's attitudes to nature. Man is held to be the noblest creature in creation and all nature subservient to him. It is not an attitude which is favourable to conservation in the modern sense of the word. However Mohammed (PBUH) also enjoined his followers not to think of themselves as self-sufficient. They must recognise the importance of the community and of property in communal ownership. Plants are a symbol of God's ability to make life in the harsh deserts.

c) Islam and the concept of gardens:

Throughout the world, the art of garden possesses a special significance. Literary sources and archaeological evidence indicate the universality and popularity of the garden and its imagery from at least the early eighth century onward. The origin of such an ubiquitous phenomenon is in the conceptual imagery of the secular and religious literature of the Islamic world, which in turn is derived from the Qur'an and in the Hadith or Traditions of the Prophet (PBUH), recorded by those who knew him. The gardens mentioned in the Qur'an are those of Paradise. In fact the word "garden" in Arabic, is *Al-Geniena,* which is the small version of *Al-Ganah* indicating for Paradise. Also there are over one hundred references to these gardens in the Qur'an.

> "Gardens of Eternity, those which (God) Most Gracious has promised to His servants in the Unseen; for His promise must (necessarily) come to pass" (Sura 19-71)[1]

For faithful believers who toil in the Cause of God there is for the hereafter the promise in the *Suras* of the Qur'an of the special mercy of God, His good pleasure, residence in gardens of perpetual delight, and the attainment of ultimate bliss in God's presence:

> "But those who believe, and do deeds of righteousness,
> We shall soon admit to Gardens, with rivers flowing beneath,
> their eternal home: therein shall they have companions pure and holy:
> We shall admit them to shades, cool and ever deepening." (Sura 4:57)[2]

Moreover, to Arabs and Muslims, heaven is a garden full of flowing streams and the shade of flowering trees. Killing the green with no reason as killing a soul, in the Hadith 'If somebody cuts a tree, God will place his head in fire'.[3] This means that a tree which provides shade to the traveller and to animals should not be cut for any reason. The Hadith and the later literature further specify the Garden's relationship to its more terrestrial counterpart. The Garden is constantly described in the Qur'an as a symbol of paradise with shades and water as its main elements. Water is the most important feature of the Garden of Paradise, giving the reason for the high values of waterfronts.

> "(here is) a parable of the Garden which the righteous are promised: In it are rivers of water incorruptible; rivers of milk of which the taste never changes; rivers of wine, a joy to those who drink; and rivers of honey pure and clear." (Sura 47-15)[4]

In Paradise there will be an abundance of food and fruit and shade trees amongst which are the pomegranate and date palm, the acacia and the Lot-tree, which marks the outer bounds of Paradise beyond which angels do not pass.

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[1] *The Holy Qur'an: Text, Translation and Commentary*, by Ali, Abdullah Yusuf, (1946), Published in U.S.A. by Khalil Al-Rawaf.
[2] ibid., Ali, Abdullah Yusuf (1946).
[3] op cit., Hakim, Besim Selim (1986).
[4] op cit., Ali, Abdullah Yusuf (1946).

"Near the Lote-tree beyond which none may pass Near it is the Garden of Abode. Behold, the Lote-tree was shroud" (Sura 53-14,15,16)[1]

With such a scriptural tradition, it is little wonder that such imagery appears in the gardens of Islam. Thus, within this concept of paradise is a clear indication as to what the garden should contain: fruit trees, water and rich pavilions, intended as places for pleasure and cool enjoyment.

What the Qur'an relates about the gardens, its form and content, is not merely descriptive: God has actually defined paradise as a garden, and it is up to the individual not only to aspire to it in the after-life, but also to try to create its image here on earth. The traditional Islamic concern is primarily for the feel of open space within, defined by its elements. Volume is more important than mass, and then the quality of that volume, its light and its coolness. The following Hadith supports the idea for the design of facilities with open seating, particularly in a hot climate: 'If one of you was in the shade and soon was partly in the shade, then he should rise'.[2] The love of shade and colour organised in respond to the arid glare and monotonous buffs of the open desert and is perpetuated in all modern gardens today and together with the overwhelming appreciation of scent and tranquillity. Thus the interaction of the garden's elements of shape and space must create a place that is totally restful, devoid of tensions and conducive to contemplation.

The above perception of gardens through Islam does not deny or delete the use of the previously mentioned elements in gardens before its rise, on the other hand it shades more focus on the importance of the concept of recreation for the body and soul and for self and society.

d) <u>The Islamic era and recreation in Egypt:</u>

The influence of Islam on the Egyptians' concept of recreation will be studied through the periods of ruling. This will start from the Fatimid period and will end by the Ottmans, as the latter was the last period before the Western influence. Accordingly the followings represent the recreational behaviour within such periods:

d-1)The Fatimid period and the concept of recreation in Cairo:

In describing Cairo's recreation and its physical features, Beherns-Abouseif wrote that Al-Qahira's (Cairo) area at the Fatimid period was no more than one kilometre square in a shape of a rectangle surrounded by walls with gates or doors. The northern wall faced the roads leading to the Delta and into the desert read towards Sinai. The eastern wall faced the desert and the Muquattam Hills. The southern wall overlooked the road to

[1] op cit., Ali, Abdullah Yusuf (1946).
[2] op cit., Hakim, Besim Selim (1986).

al-Fustat and its cemeteries, while the western wall bordered on the Khalij, from which it was separated by a street later known as Bayn al-Sourain, [figure (3.3)].

At the Fatimid period the recreation aspects of Cairo's life used to take place by the Khalij. At that time, the Khalij was a natural boarder to the western walls. Four doors of the wall were to be opened onto the Khalij, (Bab-al-Qantara, bab al-Khawkha, bab Sa'ada and bab al-Farag). Through out its history, the Khalij has been associated with the recreation aspects of the city's life, i.e. excursions, entertainment, resorts and pleasance. Moreover, the Khalij used to be a centre of attraction for all recreation aspects within the Fatimid period. Belvederes were built called *manazear* (sing.: *manzara*) which is the translation of a pleasure to look at. According to the few available descriptions, these manazear must have been raised structures planned and built to afford pleasure view.

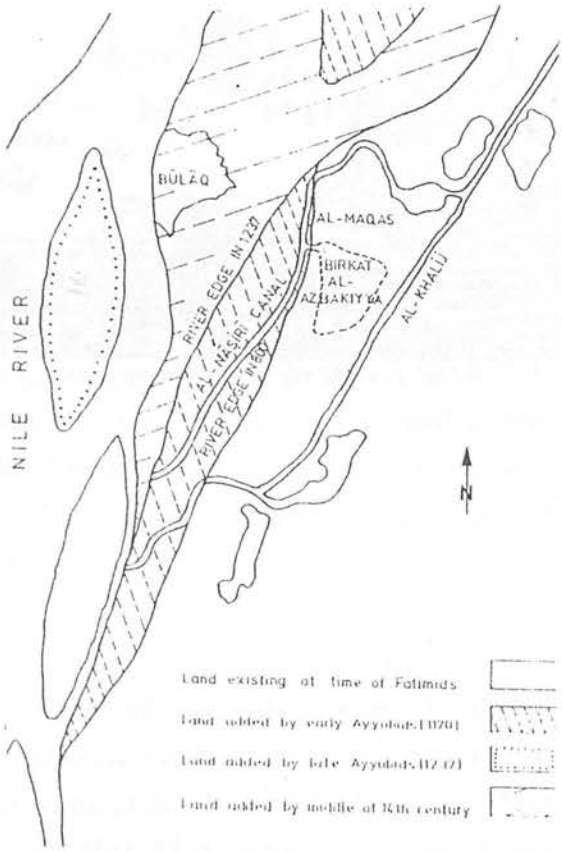

Fig. (3.4) The stages of the shift of the Nile to the west and the Khalij.

Occasions celebrated by Cairenes at that time were mainly related to the Nile and the Khalij. One of the greatest feasts celebrated in Cairo, was the flood of the Nile, which lead to the opening of the Khalij. This ceremony would take place at the beginning of the flood season in Cairo (the month of July) when the water had risen to a level high enough to allow the Canal to be opened. To the Cairenes the flood was a welcome respite from the heat and dust of the crowded city. Starting from July, the Khalij or the ponds of Cairo, were the centre of amusement and frivolities. Pleasure boats were an integral part of the scene throughout the flood season. Every time the Khalij was opened by the Caliphs, the Mamluk Sultans' and later the Pashas' multitude of boats, filled the waters. These boats were colourful painted and ornamented with coloured curtains. The flood season was also a time for wandering musicians who plied the shores, playing for an audience engaged in a not quite orthodox style of life. According to Maqrizi, there were unveiled women, wine, and elicit behaviour within the boats as well as the houses.[1] The khalij and the other ponds represented spiritual inspiration to Cairenes. In describing the

[1] Maqrizi, Khitat, I, p 368 , II pp. 143 in Doris Bęherens-Abouseif, (1985), Azbakiyya and its Enviors, from Azbak to Ismai'l 1476-1879, Institute Francaise Di Archeologie Orientale.

recreation activities that used to take place by the ponds, De Maillet, the French consul in Cairo in the late 17th century writes about one of these ponds (Birkat al-Fil): "As long as the pond is flooded with water, it is full of golden boats, in which prominent people go out with their wives".[1]

Also by such canals, as Al-Dakar canal which was dug by Kafour al-Ikhshidi, existed one of Cairo's promenades, and was crossed with a bridge (Qantarat al Dikka) which had a bench for people to rest, [figure (3.5)].[2]

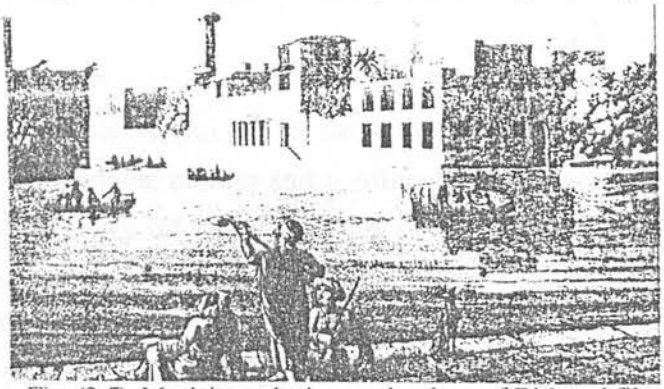

Fig. (3.5), Musicians playing on the shore of Birkat al fil.

Entertainment was also performed other quarters as al-luq which was situated on the western side of the Khalij. Beside being a market this quarter, according to Behrens, was described as a suburb with a rather marginal social character. It was also the scene of performances of acrobats, jugglers, magicians and animal tamers.

d-2) Early Mumluk period:

Ponds offered great opportunities for entertainment, specially at night. In Khitat, Maqrizi quotes numerous poems written about the beauty of life around the ponds.[3] At this period, many ponds were dug, and at that time also when Amir Azbak was the Command-in-Chief of armies of Sultan Qaytbak, that Al-Azbakiyya as a pond was formed. Azbak, who owned a passive ground at that time, was inspired by the new geographical setting and began digging a pond on the site of the former Batn al-Baqara. Water was supplied to this pond from the Nasiri Canal and a paved promenade was laid out around the pond, which was then called Azbakiyya in honour of its founder.

d-3) After the Ottoman conquest:

At that time also it has been recorded that every Friday after the congregational prayers, the entire population of the city gathered at Azbakiyya to watch public games and performances of animals tamers.[4] Moreover, coffee houses represented a common place for men to be entertained by magicians, young boys, tric-trac and chess also were played. These coffee houses were a characteristic feature of the Khalij landscape, as well as the streets of Cairo in general, during the Ottoman period and till the time being. Moreover, Cairenes used to celebrate their religious events, as their prophet moulid,

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[1] ibid., Abouseif , page 21.

[2] Ibn Iyas, III pp. 116, 134: Ibn Iyas, Nusha, p 246 ff, in Doris Beherens-Abouseif, Azbakiyya and its Enviors, from Azbak to Ismai'l 1476-1879, Institute Francaise Di Archeologie Orientale.

[3] Beherens-Abouseif, Doris (1985), Azbakiyya and its Environs: From Azbak to Isma'il (1476-1879), Supplement Aux Annales Islamologiques, Cahier No 6, Institut Francais D'Archeologie Orientale, page 25.

[4] ibid., Beherens-Abouseif, Doris (1985), page 44.

which are established according to the Islamic lunar calendar. Accordingly these events could fall in any month of the solar year. Whether it is summer or winter, filled or dry ponds, these events were always celebrated with fire works and a lot of joy.

3.1.2.3 The Western influence on the concept of the recreational gardens:

To some extent the Arab world constitutes a 'natural' region, a major sub category of the 'Third World' with its own unifying language, culture and dominant religion and its own position in the world system. Unlike many other parts of the Third World, it has always been closed to centre stage in history and has been continuing interest to Europe; indeed, between the seventh and fifteenth centuries, it was the dominant power vis-a-vis the rising European world. During this period of time, many Arab cities including, Cairo, Baghdad, Damascus, Aleppo, Jerusalem, remain among the most important cities of the world. After the sixteenth century, however, that lead was lost to Europe.[1] From this part and over, Egyptian's perception and participation in the outdoor environment for recreation has changed. The followings indicate to how and when the Western influence took place in the Egyptian culture. Also in which ways it affected their perception of open spaces starting from the French expedition until the end of monarchy. The Western influence will be studied through the followings:

a) The French era (1798-1801)
b) Mohammed Ali's era
c) Isma'il's era

a) The French era (1798-1801):

Because the French expedition (1798-1801) represented the first direct encounter between Egypt and modern European civilisation, historians agree that the impact on Egyptian's modern history of Napoleon Bonaparte's expedition has been very great.

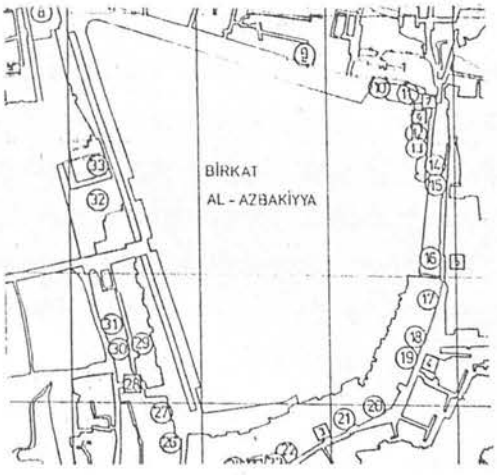

Fig. (3.6) The Azbakiyya during the French period.

The encounter occurred principally in Cairo and most of all at Azbakiyya [figure (3.6)], where Bonaparte resided and established not only his headquarters, but many of the Expedition's administrative offices as well as his mistress' residence.[2] This period represents the first western influence on both the land and people that a French historian writes: "If it were for the army alone they would have turned Cairo into a small Paris".[3] Besides the strategic modifications introduced by the French on the physical form of Cairo, the cultural aspects of their presence affected the urban character of the capital.

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[1] Abu-Lughod, Janet (1983), Urbanisation and Social Change in the Arab World, Ekistics 300 May-June p.p. 223-231.
[2] op cit. Behrens-Abouseif, Doris (1985).
[3] Reyboud, Louis, (1830-36), *Histoire de l'Expedition Francaise en Egypte*, A. J. Denain, Paris, page 66.

The presence of French troops, for instance, immediately attracted some crafts and trades, such as food peddlers. The types of recreation activities were similar to which existed in Paris at that time.[1] There was music, dancing, theatre and games. Artists would come from France to perform. There were two public squares at this time in Cairo: Rumayla and Azbakiyya. Both represent a continuous fair, with shows and performances of different types as well as multitude of peddlers. The Rumayla square cited bellow the Citadel, was originally occupied by a hippodrome surrounded by a wall. There, the Mamluk Sultans would play polo and on feast days attend prayer with the court. Another important event that used to take place there since the Mamluk period, was the departure of the Mahmal, or pilgrimage litter, accompanied by chivalry games and performances. Similarly is the role played by the Azbakiyya. People would gather there on Fridays after prayer and watch games and performances. With the arrival of the Moulid, the flood festival during the summer, and many other festive occasions, it fulfilled a function in Cairenes public life both in the religious and secular level.[2] The French period was followed by Mohammed Ali who represents the beginning of monarchy in Egypt.

b) Mohammed Ali's era:

Mohammed Ali came to Egypt from Macedonian in 1801 among the Ottoman forces raised to expel the French. His period represents a new era in the Egyptian history. It had a strong impact on Cairo characterised by radical break with tradition on the cultural and economic levels. With him the old cultural traditions were abounded, victims to his passion for European technology and methods. Among his many European advisers he employed several gardeners who laid out the gardens of his palaces. His favourite was the Shubra palace, where the gardens were a showpiece, visited by many European travellers. Winding paths led to the Fountain Kiosk where loggias surrounded a huge white marble pool and an island fountain.[3] In 1837, Mohammed Ali began directing attention to Azbakiyya, which represents an appropriate example to the Ottomans' attitude to horticulture. The main idea was to change the Azbakiyya square to a large garden in order to give the public of Cairo and particularly the Europeans a promenade in addition to the avenue of Shubra.

The Architect was Murtan Bey, whom Mohammed Ali had sent to study in Europe. According to the new plan, three paths bordered by trees crossed the middle of the former pond, where a spouting fountain provided decoration. For drainage, a canal was dug around the pond and connected with a pump located at Bulaq. A new canal dug a few years earlier to replace the Nasiri Canal provided for the irrigation of the park.[4]

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[1] ibid. Reyboud, (1830-36) page 68-73.
[2] op cit., Behrens-Abouseif, Doris (1985), page 78.
[3] op cit., Brookes, John (1987), page 180.
[4] Abu-Loghod, Janet (1971), *Cairo: 1001 Years of the City Victorious*, Princeton.

Small bridges over the canal were built on all sides and led to the interior of the garden [figure (3.7)]. Tropical trees imported by Mohammed Ali and his son Ibrahim Pasha provided shade and gave the skyline a new character. It took four years to complete the project which transformed Azbak's pond and square into a park or garden a l'Europiene. Under the shade of large trees, numerous coffee houses established by Greek and Egyptians offered guests coffee and nargils.

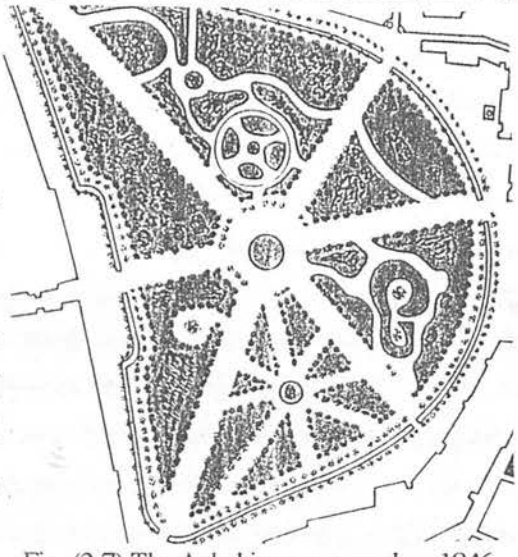

Fig. (3.7) The Azbakiyya as a garden: 1846.

During this period Cairo's architectural character was changing with unprecedented speed, vividly reflecting Mohammed Ali's policy of transforming Egypt from a medieval country into a modern one. Most of Mohammed Ali's improvement and modernisation work at Azbakiyya had thus far been continuations of Bonaparte's initiatives.[1] Mohammed Ali's era was followed by his grandson, Isma'il who followed his grandfather's steps.

c) Isma'il's era:

Under the reign of Khedive Isma'il (1863-79), the transformation for all of Cairo, and Azbakiyya in particular was completed. It began with Isma'il's visit to the Exposition Universelle in Paris in 1867. Much impressed by the urban progress achieved in the French capital that was proudly displayed to the world at the exhibition, the Khedive decided to transform Cairo into a part of Europe. The Azbakiyya garden represents an example for this transformation. At this time the garden had been changed, land was taken from what had been its northern, southern and eastern shores and subdivided for buildings. Whether in conscious or unconscious imitation of the Parisians, who had shortly before sold part of the Luxembourg Park, Isma'il sold off eight faddans of Azbakiyya garden. Inaugurated in 1872 in the presence of the Khedive himself, the garden was octagonal in shape and planned in the style of the Park Monceau in Paris. It contained a grotto where waterfalls cascaded into a small pond into which the run-off from a marble fountain also flowed [figure (3.8)].

Fig. (3.8) Azbakiyya garden under Isma'il: 1872

[1] op cit., Behrens-Abouseif (1985), page 88.

The French architect de Barillet-Deschamps, who had designed the Bois de Boulogne, was commissioned to design the gardens of the palaces on the Gazirah and at Giza beside Azbakiyya. The German botanist Schweinfurth was placed in charge of planting imported trees of the latter, thus continuing a project which had been begun under Mohammed Ali and Ibrahim Pasha.[1] Inside the park a variety of concessions operated. There were several shops and booths, including those for photography, tobacco and toys, a shooting gallery and even a Chinese pavilion. Replacing the colourful sailboats of old were a type of boat with foot treadles. Every day a khedival orchestra of both Turks and Europeans played military music and both local and European music was performed in settings appropriate to each. The European music played in European-style cafés did not appeal to the Egyptian public though; they preferred to frequent the oriental coffee houses where Arabic music played through the night.

Another form of the Western influence on the concept of recreational open spaces is the Jardin Rosetti , changed name at that time from Gayt al-Nubi to its Italian name. Before that time, the Gayt was described as an oasis of palm, orange, and sycamore trees planted around a central pavilion and pool. Under the French, the Gayt had already been converted into an English-style garden to which they added a hippodrome and a zoo. Such garden is not the only example which symbolise the influence of other cultural styles, giving Al Andalus as an example of the Moorish influence.

This concept of Westernisation was not an exemption of Cairo but also existed in other Egyptian cities. Antoniades shows the Roman style, while the Muntazah represents the Italian Renaissance. The Muntazah Palace in Alexandria represents a major achievement for Khedive Tawfiq (1877-90). A vast park surrounded the palace, a copy of the Palazzo Vechio in Florence. Strange follies are interspersed with stands of foreign palms, under planted with bushes and flower beds, where formerly herbs of gazelle were free to wander. By the twentieth century the taste for the exotic had triumph: gardens were either landscaped in the European manner or given over completely to fantasy, perhaps the most extraordinary of these being the Indian Temple of Baron Edouard Empain at Heliopolis and the Japanese Gardens at Helwan.

3.2 Recreation and Participants' Socio-Demographic Characteristics:

The previous broad description emphasised Egyptians authenticity of outdoor recreation. Subsequently, the second part of the third chapter is devoted to the factors affecting the socio-economic characteristics of participants in outdoor recreation. Such part will be studied and related to the Egyptian context through the followings:

[1] op cit., Behrens-Abouseif (1985), page 92.

3.2.1 Population
3.2.2 Social-Class and Life-style.
3.2.3 Life-Cycle Stages and the Family.
3.2.4 Differences in Sex.
3.2.5 Other Factors.

3.2.1 The Population:

Population is defined as the people who share a geographical territory and a society as a population whose members share a cultural identity and way of life, and who interact in patterned ways.[1] Historically, Egypt has been one of the oldest continuous communities in the world, a society which has survived for over five thousand years. The Egyptians had long ago acquired the sense of being one people. The establishment and control of irrigation channels and the allocation of the Nile water, which had always been in the hands of the government, brought close both rural Egypt and the urban centres. Today with the tension between modern and the traditional, one cannot begin to know the mind and soul of modern Egypt without deducing a focus on Egyptian's present population and characteristic features.

Few, if any countries in the developing world, have so long a history of population records as Egypt. The growth of population, which was 1.5 % annually at the beginning of this century, fell for a period and then began to rise rapidly from the early 1950s, reaching a rate of approximately 2.5 percent in the early 1960s. For the period 1960-1961 the growth rate slackened, but by the early 1980s, it had risen again to nearly 2.8% between 1976-1986 censuses.

The problems and dangers associated with the rapid rate of population growth in Egypt are complicated further by one of the basic fact about Egypt known as the extreme scarcity of cultivable land relative to people. Over 97% of Egypt's 1986 census population of 48.3 million is crowded in about 4% to the total area of one million square kilometres. The remaining 96% of the land area is desert. The spatial distribution of the population presents a classic example of high metropolitan primacy. In the year 1986, the concentration of the population on both the Nile valley and the Delta, gives Egypt a density rate of 48 persons per square kilometre for the total area, but over 1170 persons per square kilometre of inhabitable land.[2] In the year 1986, nearly 42.2% of the total urban population lives in two of the world's oldest cities, namely Cairo and Alexandria. The capital alone has a population of nearly 10 million, in what is termed Greater Cairo. During the period between 1947 and 1986, the urban population increased from 33 to 44

[1] Johnson, Allan G. (1989), *Human Arrangements: An Introduction to Sociology*, Harcourt Brace Jovanovich, Publishers, San Deigo, New York, second edition, page 104
[2] See chapter two page for reasons forming this problem.

percent of the total population, while the population of greater Cairo now accounts for almost half of the total urban population of Egypt.[1] The Egyptian government believes that the current rate of population growth is too high and that it impedes development efforts and frustrates the hopes for improving the quality of every Egyptian.

Following the population is the social class and life-style of the Cairenes, both affect their use and perception of open spaces for recreation. Recreation is valued differently by different individuals it is an important aspect of life if not a daily aspect of it, and there are few conditions that completely prohibit recreation. Individuals of different racial, ethnic and social background share values, customs and traditional value forms of recreation that are not always acceptable to the majority population. Hence, the study of the social class differences is an important aspects in the research.

3.2.2 Social Class and Life-Style:

The nature and meaning of social class is generally regarded as being problematic. 'Social class' can be regarded as 'a grouping of people into categories on the basis of occupation'.[2] Because of the interrelationship between social class and income education and mobility, it is generally considered that social class, as determined by occupation, is the most influential factor in determining recreational participation. The particular social class of an individual or group may be regarded as a sub-culture. It influences people's perception of open spaces and their use. Patreos mentioned that life level is, in a sense, a measure of environmental competence based on wealth. Social class is generally measured by income, education and occupation. It is manifested in both physical and intangible ways, ranging from the house type occupied and the automobile owned to the degree of prestige or status enjoyed by the individual within his community.[3]

There are many breakdowns of the social class categories, for the purpose of the study any system of four or five categories will suffice. However, the most generally recognised differences, are between lower, lower middle, upper middle and upper class. The previous four categories are not rigid class lines. Finer distinctions can be made, and several groups may not fit the pattern. These categories will be related to Cairenes' outdoor recreation behaviour as follows:

3.2.2.1 Lower class

3.2.2.2 Lower-middle class

3.2.2.3 Upper-middle class

3.2.2.4 Upper class

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[1] Central Agency for Public Mobilisation and Statistics (1991), *Statistical Year Book*, Arab Republic of Egypt.

[2] Reid, I. (1977), *Social Class Differences in Britain: A source of Book*, Open Books, London.

[3] Patreos, J. Douglas (1977), *Environment and Behaviour, Planning and Everyday Urban Life*, Adison-Wesley Publishing Company, Inc.

3.2.2.1 Lower class:

Regular-collar employment is a major scale here, usually, but not always, involving only moderate education and income levels. This group is often known as the working class. Low-income group is a group with little education and which comprises individuals who frequently lack steady jobs or one subject to the whims of the employer; little education or regular-collar employment.

In Egypt, the lower-income groups make up the largest percentage of the society. For them, recreation is informal, no specific time or budget for recreation, it is not previously planned. Most activities take place on street fronts (*Hara*), open cafes (*kahwa*), side - walks, and corners. Even with work they prefer to be in the same space derived by their motives to be part of life. A resident in low-class category, is mainly socialising in the street front. The mother does not have to lock the house or leave the family, can listen to the telephone or the baby, attend to the front door, keep an eye on the stove and watch over home bound children. For children of low class, parents being near home means the mother will be on call in case of need, [figure (3.9)].

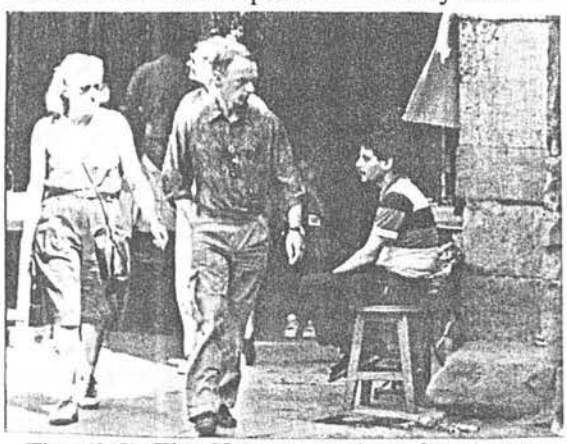

Fig. (3.9) The Hara as a place for outdoor activities in a low-class district, Cairo.

3.2.22. Lower-middle class:

Lower-middle class persons are individuals who work for others and may enjoy education and their income levels are no greater than those of blue-collar workers, but, having white collar employment.[1] Although it is considered that this category frequently exhibit a very different life-style than the previous one, it is not the case in Egypt. The Egyptian's lower middle class recreational behaviour is quite near that of the lower class. Both classes integrate and mix easily in open spaces, their needs of outdoor recreation are nearly the same.

3.2.2.3 Upper-middle class:

Upper-middle class persons have higher levels of education, comfortable salary or professional fee incomes, and may be self employed but skills are transferable regardless. In Egypt, the upper middle class is more related to the next category of life-styles, it is more organised, formal and well defined. Beside using the latter category's open spaces, this category have their special open spaces for recreation. These open spaces are either private clubs or public open spaces with a reasonable fees to pay.

[1] The term blue collar workers refers to people-factory workers, carpenters and plumbers- whose jobs involve manual labour. White-collar workers- professionals, business executives and secretaries- have jobs that are more mental than manual.

3.2.2.4 Upper class:

This involves either or both of great personal wealth or aristocratic lineage either at present or within the family at some past date. Thus affording high levels of education, where needed and ready access to positions of power and prestige. Egyptians who stem from this class attain private clubs, they even travel abroad on regular basis to fulfil some of their recreational needs. Their recreational behaviour is totally formal and organised. In general the higher class the Egyptian is, the more planned and organised outdoor activities he or she participates.

Accordingly, social class strongly influences people life-styles. The latter is affected by the former and not the opposite. Life style as defined by Michelson and Reed, according to Rapoport, is the result of choices about how to allocate resources, economic, temporal, symbolic, effort, involvement and the like.[1] There is no doubt that life style affects people participation in the outdoor recreational activities. Education, income, professional degree and urbanisation all are components and indicators to life style. It may be determined by ideology or some composite of income level and ways of allocating income among consumption items.

As both social-class and life-style affect recreation behaviour, some researchers indicate that life-style associated with certain occupation, rather than the social class itself, is instrumental in affecting recreation behaviour.[2] In Western Societies, the principal prestige ranking system, the system of authority and the distribution of income are all based on work.[3] In the Egyptian society, rank, authority and income are more closely tied to pedigree than to work. It is noted that homogeneous recreation activities occur between groups and individuals of the same, or nearly the same, social class. Although, and according to Kaplan, sometimes participants from different social class and backgrounds share same recreation interests,[4] grouping around specialised recreation time interests, such as sports events is greatly common e.g. watching a football match in Egypt. For the purpose of the study it is more suitable to investigate variations between Cairenes based on the social-class differences than that of the life-style. Succeeding, the social-class and life-style, comes age, known as life-cycle stages, and the family life. Styles of outdoor recreation changes as people move through the life-course. Age has an important

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[1] Rapoport, Amos (1989), Environmental Quality and Environmental Quality Profile, in Nicholas Wilkinson (eds.), Quality in the Built Environment, public and private responsibilities in housing design and settlement planning, open house international association conference proceedings, The Urban International Press, July.

[2] Anderson, N. (1961), *Work and Leisure*, New York, Free Press, and Gerstl, J. E. (1963), Leisure, Taste and Occupation Milieu, in E. O. Smigel (ed.), Work and Leisure: a contemporary social problem, New Haven, Conn., College and University Press, pp. 146-167.

[3] Klausner, Samuel Z. (1976), Recreation as a Social Action, in Harold M. Proshonsky, William H. Ittelson and Leanne G. Rivlin, Environmental Psychology: people and their physical settings, 2nd edition, p.p. 418-432.

[4] Kaplan, Max (1960) *Leisure in America: A social inquiry*, New York: Wiley.

influence on out recreational participation but its effect will vary depending on the person and the type of activity. They both affect the recreational behaviour of any society.

3.2.3 Life- Cycle Stages and Family Life:

All the world's stage, And all the men and women merely players:
They have their exits and their entrances;
And one man in his time plays many parts, His act being seven age.
(Shakespeare, As You Like It, II. viii.)

Life-cycle stages and family life are two interrelated factors affecting recreation behaviour. One of the more common phrases used to promote family recreation in the adage, 'the family that plays together, stays together'. This phrase suggests that recreation experiences do more than promote family satisfaction and interaction. They also promote family stability. Accordingly such stability leads to stronger relationship. Moreover, the effect of recreation on the marital communication is very strong. It has been found that a very strong relationship exists between joint recreation activities and positive communication, as well as, a strong negative relationship between individual activities and marital communication.[1]

On the other hand, life-cycle stages represents a way to deal with age. However, age should not be considered in isolation. Age may be less restrictive than life cycle changes, such as getting married and having children, while for some, participation may increase with age as a result of the children leaving home or a person returning from work. Hence, the life cycle approach will look at the role of outdoor recreation in the lives of individuals at various ages and in different family circumstances. For children there is a rapid change in the space of a few years from toddler to pre-school to junior to teenager, each calling for very different kinds of provision. Even for adults there is a marked change with age, with participation in most active recreation pursuits declining sharply as people grow older. For example, active recreation is found to decrease with age and passive recreation to become more common, [figure (3.10)].

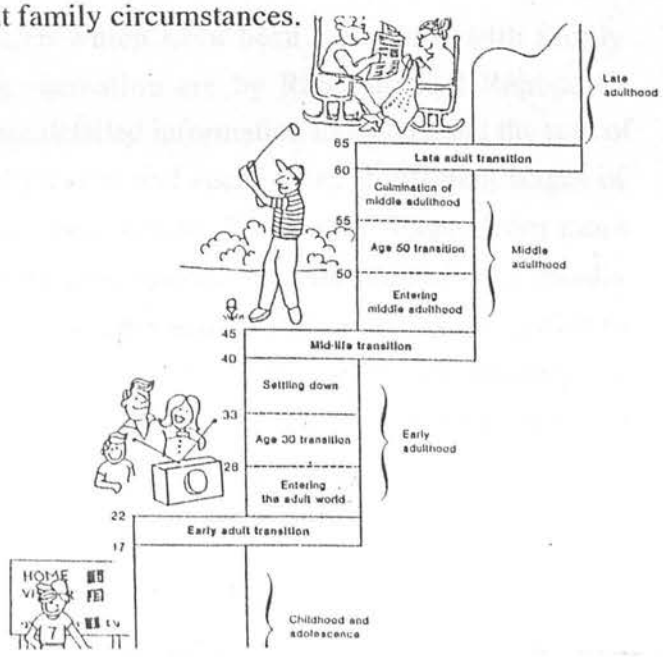

Fig. (3.10), Developmental periods in the life-cycle. (from the Seasons of a Man's Life, by Daniel J. Levinson.)[2]

[1] Orthner, D.K. (1976), Patterns of Leisure and Marital Interaction, Journal of Leisure Research, vol. 8 (2). pp. 98-111.

[2] Iso-Ahola, S. E. (1980), The Social Psychology of Leisure and Recreation, Wm C. Brown Company Publishers, Dubuque, Iowa, page 165.

The importance of both age and family stems from the idea that desecrate sets of physical and psychological needs correspond with age-family conditions. Thus, child raisers will seek different kinds of environmental support than will single adult or children or middle-aged parents whose kids are no longer children. Clearly infants and senile people are heavily restricted in their recreational behaviour. Children undergo parental restriction, which represents an outer influence in the recreational behaviour. While parents usually sustain many behavioural restrictions when in the child limited phase. However, not only forms of recreation are affected by life-cycle stages and family life. Recreation plays a central role in family experiences and the strength of family bonds. The value that share recreation experiences can have for families has been widely acknowledged.

Family life cycle not only affects what is done, but why and with whom. Marriage does not radically change the activities themselves and in the process, the primary companion more and more becomes the 'intimate other'. For parents of young children, responsible nurturing not only constrain outdoor recreation, but become a primary satisfaction. Being with spouse and children, developing patterns of satisfying interaction and supporting and joining older children in their developing recreational and educational interests are central elements of recreation. Family interaction itself is a major recreation activity that is carried out in a variety of contexts including home, transportation, outdoor resources, etc. Hence, during the parental phase of the family life cycle, children are more the common focus of communication and planning.

However, the three major lines of research which have been concerned with family recreation and which could be used for recreation are by Rapoport and Rapoport[1], Kelly[2]and Orthner[3]. The Rapoports present detailed information to understand the role of recreation in the development of personal identity and social roles at different stages of the life-cycle. Kelly has found that family associations dictate how people learn more than half of their recreation interests. Parents' most important recreation activities usually centre around family activities. Kelly also used several socially relevant categories to organise the recreation activities in his study. Orthner more specifically has investigated the interaction of spouses in relation to recreation. He has found relationships between activities and the interaction of spouses which differ over the marital career.

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[1] Rapoport, R. and Rapoport, R. N. (1975), *Leisure and the Family Life Cycle*, London: Routledge and Kegan Paul.

[2] Kelly, J. R. (1978), Family Leisure in three Communities, Journal of leisure Research, vol. 10 (1), p.p. 47-60, and (1974), Socialization toward Leisure: a development approach, Journal of Leisure Research, vol. 6 (3), p.p. 181-193.

[3] op cit., Orthner, D. K. (1976).

In Egypt, the family represents the keystone of the society; it does not only include parents and children, the nuclear family, but the wider extended family of grandparents, aunts, uncles, and cousins all living in close association [figure (3.11]. In cities, this family life has broken to some considerable extent, but in the villages the family is the basis of an individual's social life.

Fig. (3.11), families' gathering in an open space, Cairo.

Although life-cycle stage is a handy way to bracket ages, one should be aware that it is a crude measurement which lacks exact boundaries as to where one level ends and another begins. As defined in the first chapter, the research will classify life-cycle to four stages that any individual passes through in his life journey.[1] These stages will be studied in relation to outdoor recreation within the Egyptian context as follows:

3.2.3.1 Childhood stage

3.2.3.2 Adolescence and teenagers stage

3.2.3.3 Adulthood stage

3.2.3.4 Old age stage.

3.2.3.1 Childhood:

At this stage of age, it is doubtful whether we can sensibly use the concept of leisure or recreation at all. Since time, for pre-school children in dealing with the traditional definition of recreation, has not become institutionally divided between obligatory activity (at school) and non obligatory activity.[2] While at the stage where children go to school, the notion of recreation becomes more appropriate, although the choice of outdoor recreation is normally restricted by parents. Recreation at this stage will be referred to as 'play'.

The importance of play in the childhood period could not be neglected. Playfulness is one of the personality traits that seemed to differentiate between more creative and less creative children. One of the critical benefits of a child's play has long been thought to be its contribution to the child's thinking ability. Children have been shown to acquire knowledge most easily through play across a variety of contexts. For children, play is highly purposeful, a child's play is similar to the process of learning and it features the

[1] See chapter one page for life-stage categories.

[2] Child Elizabeth and Child John (1973) Children and Leisure, in Smith; M. A., Parkers; S. and Smith; C. (eds.) Leisure and Society in Britain, London: Allen Lane p.p. 135.

process of assimilation -digesting and integrating cultural materials and signals which are supported by the society through the family. So at this stage, beside the influence of the parents or guardian, through play the basics of the appropriate behaviour starts despite the differences between children.

The variation between children in outdoor recreation activities depends on several factors as family, social class; both were earlier discussed; sex, culture and age. Dealing with differences between culture and style of play, it is noted that the most pervasive differences among types of children occur because of the different cultures in which they are raised. Roberts and Sutton-Smith have put forward a 'conflict-enculturation' hypothesis for cross- cultural variations in play.[1] In societies which stress success as an important goal, children will play games of physical skill and use success in these games to assuage their anxiety about achievement. In these cases, the basis of involvement in games is the need for relief from inner tensions which the socialisation process has brought about. Also in their study on neighbourhood quality and children's evaluation, Homel and Burns found the following criteria important in children's evaluations of their environment: friendly people, parks, quiet streets, other children to play with, backyards and open spaces.[2] This agrees with Silbereisen and Noack's findings that physical aspects and contact with the same age-group are important to children.[3]

For differences due to the social class within Egypt; parents of lower class are likely to encourage their children to fight their own battles and thus to exhibit more overt aggression in their play. By contrast, children of higher-middle class parents are more likely to have their disputes controlled by their parents and to play with less-apparent aggression in their own houses or public gardens. Also middle class children, generally have less play space inside the home and so parents let them play out much easier than the upper class. In Egypt, it is very common for children of the lower class and part of the middle (depends on type of residential building), to play in the streets and side walks. A number of studies have shown that throughout the world children of parents in poverty lack opportunities (cultural deprivation) to acquire the fundamental skill, habits, values and standards necessary for the development of competence.[4] For upper class this does not exists, they mostly recreate in private clubs.

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[1] Roberts, M. and Sutton- Smith, B. (1962), Children Training and Game Involvement, *Ethnology*, April.
[2] Homel, R. and Burns, A. (1987) Is This a good place to grow up in? Neighborhood quality and children's evaluation, Landscape and Urban Planning, vol. 17, p.p. 101-116.
[3] Silbereisen, R. and Noach, P. (1977), Adolescence and environment, In D. Canter, M. Krampen and D. Stea (eds.), Environmental Policy, Assessment and Communication, Avebury, England: Aldershot, p.p. 19-34.
[4] Hunt, J. Mc. V. (1969), *The Challenge of Incompetence and Poverty*, Urban Ill.: University of Illinois Press.

In general, the children in Egypt are accompanied with their mothers till a certain age, the pre-school age around 7 years old. Between 7 and 13 years old, the age of primary school, they are partly free although an eye is watching them. As for 13 years old and over, more freedom is established which leads to the next phrase of age.

3.2.3.2 Adolescence or teenagers:

To understand the role of outdoor recreation at this stage in the life cycle it will be helpful to bear in mind the three perspectives on adolescence suggested by Cyril Smith.[1] Smith classified such perspectives as the agencies, shifts in status and the youth culture.

The fist perspective on adolescence is the agencies. During the period of adolescence, and as pointed by Parker, the individual is socialised into outdoor recreation habits and attitudes through two main agencies, his family and other institutions, mainly schools and peers, with which he comes into contact. The influence of the family on a young person's recreation depends on a number of factors, among which two of the most important are: First; being in or out of full- time education and second; living with or apart of the family. These two points may be differently viewed in a traditional society as the Egyptian, whereas most young people separate from the family when getting married and not before.[2] For a young person who has a job while living with his parents he is in much more better position to enjoy a wide choice of outdoor recreation activities and be relatively, and in a limit, free from adult supervision.

The second transitional perspective on adolescence directs our attention to the successive small shifts in status and role which help to explain why adolescent behaviour so often appears uncertain and the young person, at a loss as to how he or she should behave. Progression from primary to secondary school and perhaps university involves successive improvements in status which normally carry with them greater command over resources and greater freedom of movement. Whereas the 'socialisation' perspective lays emphasis on the change in parental supervision when the young person enters employment, the 'transition' perspective is more concerned with actual changes in the pattern of life and recreation. Towards the end of his school life the student will be under increasing pressures of competition for examination success and for entry into higher education, which will limit the available time for recreation. For a young person who does not enter higher education, starting full-time work usually means much less time available for recreation. He is likely to set off for work earlier than he did for school and return later, probably more fatigued. Although his weekends will not be much affected, his holidays

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[1] Smith, Cyril S. (1973), Adolescence, in Smith; M. A., Parker; S. and Smith; C. (eds.), Leisure and Society in Britain, London: Allen Lane.

[2] See chapter one, page for differences between families in modern and traditional societies.

will be much shorter. To compensate for this, he is likely to have a sharp increase in income, making it possible to exercise more choice in outdoor activities.

The third perspective on adolescent recreation is that of youth culture. Wherever young people have gathered together, apart from adults, they have tended to develop their own style of life. The expansion of the mass media has it possible for the young to achieve a symbolic unity which does not need, although clearly enhanced by, physical association. At the same time, adolescence is a period when the individual's involvement in family life is weak. In deciding how to use their spare time, young people in contemporary society are much more strongly influenced by the views of their peers than by those of their parents. They are keen to develop new tastes and they are willing to experiment, with the result that their recreation is extremely colourful and varied in contrast to the more stable and conventional pursuits of their elders. However, the impact of the recreational styles of the young upon their elders should not be overestimated. Adults still form the larger part of the market for most forms of entertainment, and it is only with their support that these remain economically viable.[1]

3.2.3.3 Adulthood:

Between the pre-employment 'first age' of childhood and adolescence and the 'third age' of retirement there is a substantial period of the life cycle during which most adults are both or either working for a living or raising a family. There are exceptions to this broad generalisation- some adolescents and some persons beyond retirement age have a paid occupation- but for most of us the adult years from about twenty to sixty are more active than those before or later.

When dealing with a span of the life cycle which embraces forty or more years, age is clearly a factor influencing changes in patterns and preferences for recreation activities. Also, it should be taken into account that at any given age some people will be married and some single and that some of the former will have no children, some young, and some older children. The concept which includes all four dimensions; age, sex, marital status, and children, has been called "domestic age".[2]

As an example to the variation in recreational patterns of domestic age groups, the changes that take place among women. It is noted in Egypt, that at marriage women's participation in physical recreation lies after the social. Also, at all ages, women prefer social activities more than men. On the other hand, men prefer the physical, which is

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[1] Parker, Stanley (1979), Leisure in the Life Cycle, in Van Dore, Carlton; Priddle, George B. and Lewis, John E. (eds.), Land and Leisure: concept and methods in outdoor recreation, Maaroufa Press, Inc., second edition, pp. 25- 35.

[2] ibid. Parker, Stanley, (1979), pp. 30.

very noticed in the streets where they play football beside teenagers. If they cannot, for any reason, they will just watch the game, [figure (3.12)]

Another example, but dealing with the marital status, single people take part in a much wider variety of activities outside the home than married people. This is a result of the fact that parenthood brings changes in the recreational habits of young people. Their domestic responsibilities increase with the result that the amount of time and money available for recreation interests diminish. Such free time as is left tends to be spent in the home, and pursuits previously centred upon the peer group are often dropped. Few new recreational interests are acquired after marriage.

Fig. (3.12), The recreational use of an outdoor space between buildings in a lower-class district, Cairo.

On the other hand, single people can afford more expensive holidays and more frequent outings than married couples on the same income. Nevertheless in Egypt, many single men and women suffer from loneliness in their recreation time, even though they often live with their parents. Specially single women who despite the progressed position they achieved in their work, they are tied by their Egyptian's culture codes. As a result, Egyptian single women prefer to immense themselves in work , including house work or social activities, rather than face the emptiness of outdoor recreation interests.

3.2.3.4 Old Age- the young at heart:

Health and mobility have an important effect on both the amount of recreation available to the elderly and the quality of its enjoyment. Satisfying use of outdoor recreation, the main goal, cannot substitute for poor health, lost family and friends, or an inadequate pension. Nor can it take place of the feelings of usefulness and purposefulness which are probably the greatest needs of the aged. For those in good health and able to move about freely, retirement can bring new opportunities to take up, or have more time for, a wide recreation pursuits. But for the elderly who are not in good health the problem of filling the empty hour is partly solved in that things take longer to do, anyway. Social

interaction, as a type of recreational activity, has been found to be particularly important for the happiness and health of the elderly.[1]

Retired persons as a whole face the problem of what to do with extra time available. In the Egyptian context, and because Egypt is one of the traditional countries, specially women will find that retirement from their job or from responsibilities connected with their own children, is filled by activities connected with their grand-children. This connected activities bring psychological satisfaction which is highly evaluated. On contrary, although Egyptian men might be involved in this sort of activity, they prefer to work in limited time jobs even after retirement. This is either for adding money over their pension income but mainly to fulfil the feeling of usefulness. Others might be spending their time playing backgammon in coffee houses or in the mosques fulfilling their spiritual needs through reading the Qu'ran and praying.

3.3 Differences in Sex:

In Islamic societies, men have a dominant role in the society and it is the same in Egypt. Women and children are expected to obey the man of the family to treat him with respect. The majority of Egyptian men have only one wife at once; although according to Islamic rule and under certain conditions, a man has the right to four wives. In the country women still lead a traditionally secluded life, since the honour of their family depends on their reputation remaining non-tarnished. Teenage girls are carefully watched and some times kept at home; an illicit affair or a girl or a woman could still end in her death at the hands of her relatives. In the cities women are obtaining more freedom; they study alongside men, take a job and achieve high positions in professional and political life. Hence men are much more busier than women, which enables the latter more recreational time. Whether or not they go out to work; girls usually have a greater obligation to perform household duties than boys and in their early life-cycle stages, their play pattern is different than that of boys.

Singer and Rummo examined the relationship between divergent thinking ability, creativity and playfulness in boys and girls. Their research reported that highly creative boys were communicative, curious, humorous, playful and expressive. On the other hand, for girls, none of the play measures were related to creativity alone, but they interacted with measures of intelligence. These findings were further explicated by Hutt and Bhavnani who found that more girls could be classified as "non exploratory" in their play,

[1] Graney, M. J. (1975), Happiness and Social Participation in Ageing, Journal Gerontology vol.: 30 p.p. 701-706

while boys tended to be more "inventive explorers".[1] To a great extent than the activities of girls, boys' play activities involve physical strength, need of achievement and banding together. Mentioning differences in sex, there is also a social class difference, where adolescent daughters of middle- class working mothers engage in much organised and unorganised recreation activities, on the other hand, the daughters of lower-class working mothers report heavy home responsibilities and fewer recreation activities.

3.4 Other Factors:

Beside the previous factors, there are others, that still affect the socio-economic dimension in participants. Another personal factor affecting the interaction between people is the differences between groups based on ethnic, regional, education level, occupation and income factors. Various studies confirm the conclusion that occupation is related to certain preferred ways of spending time in outdoor recreation. For example, Gerstl found that college professors spent less time with their children and around the home and less time on sport and non-professional organisations than did either advertising men or dentists.[2] Graham, concluded that the proportion of professional workers participating in strenuous exercise was nearly twice that of unskilled workers.[3] Also past experiences, current expectations and previous moods influence affective responses as do age, gender, life-style, culture and socio-economic status. In a similar vein, Neumeyer and Neumeyer had earlier suggested that while personality characteristics have important bearing on recreational choices and pursuits also affect personality. They studied various group aspects of recreation such as the nature of recreation groups, social processes involved in recreation and the relationship between crowding and recreation behaviour.[4]

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[1] Singer, J. L. and Rummo, J. (1973) and Hutt, C. and Bhavnani, R. (1976) cited in Lynn A. Barnett (1990), Developmental Benefits of Play for Children, Journal of Leisure Research, vol. 22, no. 2, pp. 138-153.

[2] Gerstl, J. E. (1963), Leisure Taste and Occupational Milieu, in E. O. Smigel (ed.), Work and Leisure: a contemporary social problem, New Haven, Conn.: College and University Press, pp. 146-167.

[3] Graham, S. (1959), Social Correlates of Adult Leisure-Time Behaviour, in M. B. Sussman (ed.), Community Structure and Analysis, New York: Crowel, p.p. 331-354.

[4] Neumeyer, M. H. and Neumeyer, E. S. (1949), *Leisure and Recreation*, New York: A. S. Barnes and Co.

Summary:

Chapter three examines the socio-cultural characteristics of participants as the first dimension of the recreation's paradigm. These characteristics are classified into two aspects. The first focuses on the authenticity of outdoor recreation in Egypt, while the second the socio-demographic factors affecting participants concerns itself with recreation experience.

The authenticity of outdoor recreation in Egypt is first identified by the term Egyptianity. Conservation, isolation and a long-established traditional social structure comprise what might call Egypt's permanent 'Egyptianity'. The essential feature of Egyptianity has been of an overwhelmingly of rural attribute which forms the first unified notion known to history. Their unity and characteristic response to foreign influence at all times have not been the result of any speculative thought on their part. Rather it has been a reflection of their heritage and their style of life: their unity in suffering while clinging to their traditions and beliefs, to their religious values and principles. This constitutes, perhaps the essence of the continuity of Egyptianity through history.

The constituent origins of the Egyptian perception of recreation and open spaces; Ancient Egyptian, Islamic and western, are then pursued. The Ancient Egyptian period represents Egyptians' primary attitude and perception towards open spaces. Egypt has a long history, not only as a civilisation with monumental structures and tombs, but also for gardens' design. Although these gardens were for living in, not for looking at, design was originally based on utilitarian rather than recreation reasons. Plants and water lakes were the most important landscape elements at this period. These physical attributes have always reflected their sacred views about life and here after. In general the Ancient Egyptians were famous for their love of natural elements and greens which was obvious in their tombs and coffins.

Islam represents another major factor in constituting the conception of recreation as it stems from religion. The Egyptians as Muslims, hold strong values for greens and gardens. Such attitude stems mainly form the Qur'an n and Hadith. Moreover, for recreation behaviour, Egyptians used to celebrate the flood of the Nile and the religious events in great joy and glory. All sorts of outdoor recreation by that time were participated as fire works, boating, polo and watching performances by musicians, magicians and animal tamers. These recreation experience were male dominated. In their daily life, walking by the Nile and watching the scenes were also some of their favourite recreation activities. Benches, as landscape elements, were situated by the Khalij to support such activities.

The end of the eighteenth century and the beginning of the nineteenth century, represents a period of the problem's formulation, when the Western influence on Egypt started. Gardens were planned and developed for public recreation. Architectural landscape of recreational open spaces, given Al-Azbakiyya garden as an example, was designed, at that time, according to the modern urban concepts . Most of Egypt's squares and parks were as fashioned as those of the great capitals of Europe. Even the landscape elements were replaced by other types. Moreover, the West has emphasised new alien recreation activities, e.g. croquet and golf. Theatres, dancing and music began to become popular. European style cafe' were very popular beside the existence of the Orchestra. By the turn of the twentieth century most of these gardens have shrunk considerably as a result of the urban expansion, which formulate another view for the problem.

Following the authenticity of outdoor recreation in Egypt was the socio-demographic characteristics of participants were classified into four facets; population, social class differences, life-cycle stages and sex differences. It was found that rapid increase of Egypt's population in addition to the technological advance have largely influenced both; Egyptian's recreation experience and places of participation. No safety is achieved in the streets' front due to the interference of vehicle accordingly, open spaces for recreation, known as gardens, replaced the Hara and Maidan. In addition the indoor space that used to embody recreation activities does not exist any longer due to the increase of population, such space is now replaced by outdoors.

Moreover, recreation experience and participation varies widely between the four social classes; the lower, lower-middle, upper middle and upper class. It has been found that the latter two categories in Cairo practice their recreation activities mostly in private clubs, which fulfil most of their needs. On the other hand, the two former categories in Cairo used to participate in the Maidan which is now replaced by public gardens.

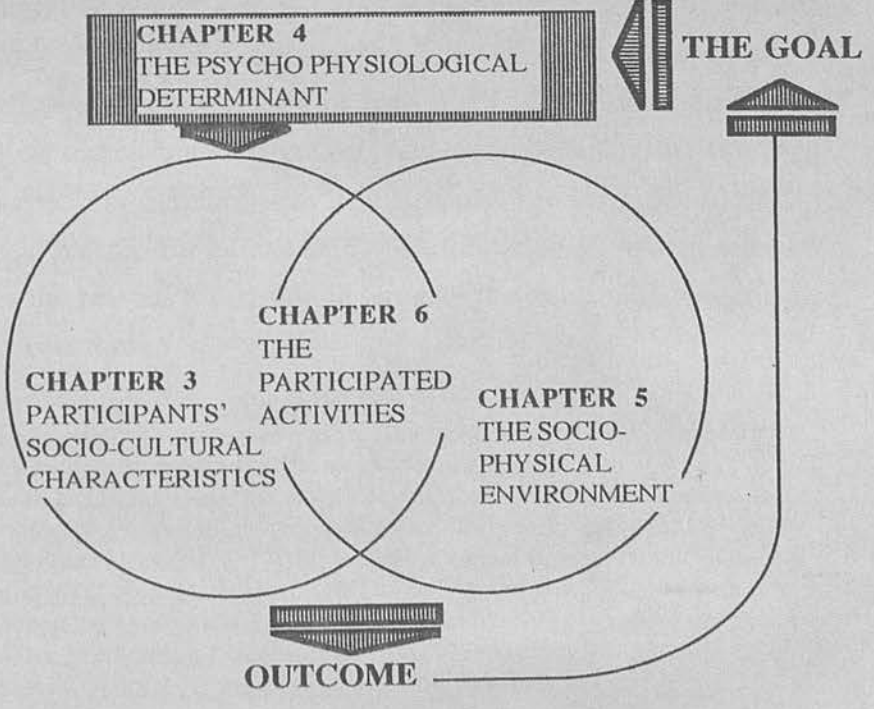
Recreation choice is heavily influenced by life-cycle stages. What one chooses as a child or teenager may no longer appeal when one is older. The strenuous activities engaged in by young adult may be no more than the older person either can undertake or wishes to undertake. The kinds of activity depends largely on the users' physical condition, which varies in both; sex and life-cycle. Research indicates that the human life-cycle can be divided into four broad stages; childhood, Adolescence or teenagers, Adulthood and old age or the young at heart. While it appears that outdoor recreation participation generally decreases with age, this does not mean that the importance of recreation diminishes as age increases. It was noted also that the social interaction as a passive recreation is by far the most frequent use of the elders' free-time. Studying the family role in outdoor recreation participation in Cairo, indicated that it is expected that the mother has the strongest impact on the development of individual's recreation pattern, specially in the first stage of

life-cycle. But as the child grows older, the influence of peers are more stronger. However, the influence of parents on children seems to decrease through children's growth.

Noticing that there are, yet, many sex differences in children's play patterns, the fourth characteristic of this chapter was introduced. The difference between people as a result of sex is a major aspect especially in Egypt. The women's role in Cairo is more related to their family responsibilities, so most of their recreation experience is related to their children's. In addition they are expected to participate part of their recreation experience indoors more than outdoor. On contrary, men in Egypt are more expected to participate in the outdoors due to their economic responsibilities towards the family. Finally, other factors were found to affect socio-economic determinant of Cairenes participation in outdoor recreation, although relatively they are not as important as the three main facets, as education level, regional, occupation and income factors.

Thus, the socio-cultural characteristics of participants in terms of recreation experience have been identified. This should prepare the stage for the study of the psycho-physiological determinant of recreation.

CHAPTER FOUR:
4. THE PSYCHO-PHYSIOLOGY OF RECREATION BEHAVIOUR



THE RECREATION PARADIGM

CHAPTER FOUR

4. THE PSYCHOPHYSIOLOGY[1] OF RECREATION BEHAVIOUR
The explanatory approach

The provision of open spaces for recreation in residential areas is an important part of urban planning. Although most planners, designers and decision makers probably share the attitude that these open spaces contribute to environmental quality in urban areas, few can discuss the benefits derived in any precise manner. What prevent such a discussion is a lack of experimental research concerning benefits, psychological functions and behaviour associated with open spaces for recreation. On the other hand, considerable progress has been made recently in identifying psychological and social benefits of recreation in wilderness areas and large urban fringe parks,[2] full evaluation of the potential of smaller urban and residential open spaces as environmental amenities awaits intensive and systematic investigation on the relationships among parks, users and the surrounding built environment. Hence, there are two points that need to be cleared. First to expand the focus of research for understanding the psychological benefits of outdoor recreation in urban areas. Second is the importance of such study in the Egyptian society.

In order to accomplish these two points, an investigation on some theories and researches dealing with the psychology of outdoor recreation, should be revealed. Accordingly, this chapter will be considered as a literature review of such studies from which a concept of measuring the psychological dimension of Egyptian's recreation behaviour will be related to. The chapter is divided into two main parts. The first part is a brief overview of the general psycho-sociological reasons for human beings' participation of outdoor recreation. The second part describes the reasons dimension in terms of the three main classification; needs, motivations and satisfaction.

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[1] The term psychological refers to research approaches that are concerned with the measuring of physiological responses as they relate to the human needs, motivations and satisfaction.

[2] Researches done by : Driver, B. L. (1976), Qualification of Outdoor Recreationist's Preferences, in Research Camping and Environmental Education, Pennsylvania State University, Series 11, University Park, Ps, also, Driver, B. L. and Knopf, Richard (1977), Personality, Outdoor Recreation and Expected Consequences, Environment and Behavior, vol. 9 (2) pp. 169-193 and Shater, E. L., Jr. and Mietz, J. (1969), Aesthetics and Emotional Experiences Rate high Northeast Wilderness Hikes, Environment and Behavior, vol. 1(2) pp. 187-197, and also see Hautaluoma J. and Brown P. J. (1978) Attributes of the Deer Hunting experience : a cluster analysis study, Journal of Leisure Research, vol. 10 (4) pp. 271-287.

Public recreation services and facilities are vital in urban areas as they enhance and improve the quality of life. In the modern complex world, where so many aspects of life are specially ordered, recreation is often a major opportunity for self- expression. Through the years it is noted that attitudes about recreation and the values offered from it have changed. In most societies, people seek outdoor recreation as a result of two hypothesis: 1) as urban population increases, the need for outdoor recreation activities -a return to nature- will increase, and 2) as urbanism as a way of life becomes more widespread there will be an increase in the demand for outdoor recreation. Egypt as these societies suffered from such factors. Moreover, Egyptians seek outdoor recreation as a result of three more aspects: 1) types of residence are not encouraging the people to enjoy the outdoors as before. 2) Technology and the interference of vehicle to the urban form made it difficult for people to use the street fronts as before. 3) The size and volume of the inside space of flats are always limited by economic aspects which made it more difficult for residence to fulfil their recreation needs.

Recently, most societies have started to value the importance of open spaces and express a need for appropriate facilities. The resulting satisfactory experience has considerable personal, social, economic and educational values. In our complex, technically advanced, industrial society, recreation provides access to opportunities for human growth and development, opportunities that far exceed the original concepts of recreation's values. As a result of this complexity, both psychologists and sociologists studied the effect of recreation on human beings and societies.

From the psychological point of view, many psychologists have examined play behaviour as recreation at length.[1] According to Freudian theory, all human behaviour is motivated. Nothing happens by chance, not even behaviour which appears to be accidental. Every day errors and accidents are far from being just accidental, but are caused by underlying and unconscious wishes or intentions. In analysing dreams, Freud found the same unconscious process at work. He traced the meaning of dreams and dream sequences which in a conscious level had no apparent meaning to the dreamer. On this hypothesis of psychic determinism, Freud built his theory of psychic structure and functioning. In all cases, need is a motivational concept referring to the processes, conscious or unconscious involved in goal-oriented behaviour.[2]

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[1] See Freud, A. (1946), *The Psycho-analytic Treatment of Children,* London, Imago; also Freud, S. (1955), Beyond the Pleasure Principle, in J. Strachey (ed.), The Standard Edition of the Complete Psychological works of Freud, 1920-1922, vol. 18, London : Hogarth and the Institute of Psychoanalysis, also see Erikson, E. H. (1943), *Childhood and Society,* New York : W. W. Notron and Co., Inc., and Ellis, M. J. (1973), *Why People Play*, Englewood Cliff, N. J. : Prentice-Hall, Inc.

[2] Torkidsen, G. (1986), *Leisure and Recreation Management,* Great Britain: University Press, Cambridge, 2nd ed.

Another theory which deserves special attention is Patrick's classic text on the psychology of relaxation.[1] He developed the thesis that popular recreation activities are a form of recreation against too serious and tense a style of life in modern societies. He pointed out that after great tension there must be great relaxation for a person to be able to survive. But because of increasing tension in modern societies, as a result of the factors mentioned earlier, natural forms of relaxation are replaced by artificial means of relieving the strain, and thereby temporarily restoring mental balance. He further noted that the forms of individual relaxation affect on the one hand other individuals and the entire society, and the society influences the choices of individual relaxation on the other. Such findings put more pressure on the importance of recréation for both humans and societies to achieve the humanistic balance.

Beside the previous two examples of psychologists' work in this area, several sociologists have studied social aspects of recreation behaviour. Some sociologists oriented studies deal with the functions of recreation. Gross hypothesised that recreation has four major functions: 1) pattern-maintenance and tension-management, 2) adaptation 3) goal-attainment and 4) integration.[2] In turn, Dumazedier presented the functions of recreation as follows: 1) relaxation and diversion, 2) social participation and entertainment, and 3) personal development and learning.[3] Finally Huizinga expressed the ultimate necessity and function of recreation by concluding that 'real civilisation cannot exist in the absence of a certain play-element'.[4] This is why play and recreation have had, and will have, an irreplaceable role in the history of human kind.

Followed by this general introduction of the psycho-sociology of recreation, the second factor of the recreation paradigm will be analysed and related to the Egyptian context. From the early discussion, the importance of needs of recreation for both humans and societies have been cleared out. Such needs, accordingly, generate motivations that drive humans to practice recreation. In their participation, participants are expecting specific satisfaction as a reward from their engagement in recreation activities. Accordingly, reasons for participation in recreation experience could be limited in three main lines; needs, motivations and satisfaction. The three are appropriate although there are differences between the them. Needs and motivations can be looked at as things that cause recreation to be sought, while satisfactions, need satisfaction and psychological outcomes can result from outdoor recreation. Needs are distinguished from motivations and are seen as preceding them; they are the cause of motivation rather than the

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[1] Patrick, G. T. W. (1916), *The Psychology of Relaxation*, Boston, Houghton Mifflin Co.

[2] Gross, E. (1963), A Functional Approach to Leisure Analysis, in E. O. Smigel (ed.) Work and Leisure: a contemporary social problem, New Haven, Conn.: College and University Press.

[3] Dumazedier, J. (1967), *Toward a Society of Leisure*, New York: The Free Press.

[4] Huizinga, J. (1949), *Homo ludens: A Study of the Play Elements in Culture*, London: Routledge and Kegan Paul, Ltd.

motivation itself. Also, motivations are complex. Different activities can be done by different people at different times. Different activities can be done for different motivations by the same people at different times. The same activity can be done for different motivations by different people at the same time, and so forth.

The complexity of the three components could be more simplified with relation to recreation. For example all participants share common needs, which should be balanced in a way. When they are involved in a specific recreation activity they are motivated by a specific need that differs between participants and for the same participant due to several factors and influences. Also the satisfaction gained from the experience of recreation depends on the motivation of participation in addition to needs expected to be fulfilled. This complexity does not mean that we cannot find substantial commonalty in needs, motivations or satisfactions which will allow us to design recreation facilities and optimally satisfy many people. Accordingly, chapter four is devoted to studying the three factors, representing the reasons dimension, by which people are driven to participate outdoor recreation and will be related to the Egyptians as follows:

4.1 Needs.

4.2 Motivations.

4.3 Satisfaction.

4.1 Needs for Recreation:

> "Every one shares common needs with each other, but each person also has unique needs and ways of expressing and satisfying those needs. Knowing what shared needs to expect is important, but discovering the unique needs of a group-society is a key to socially suitable design because it is the 'idiosyncratic needs' that generate idiosyncratic but appropriate open spaces."[1]

To know the idiosyncratic needs of Cairenes is probably not an easy task. Generally, People's needs for recreation are known and accepted. A great deal of research has tried to describe the causality of recreation behaviour. Some of the well known theories suspect that people play because of their need for expression and that relaxation is the cause of pleasure. However these early theories were criticised because they failed to recognise the multifaceted nature of recreation.

Recreation services are said to be based on the needs of people. Yet, recreation policy-makers, researchers, planners and managers have insufficient insight into people's needs. The understanding of needs fraught with great difficulties, different psychological approaches. The complex picture is described in the IFER/DART as follows:

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[1] Hester, Randolph T. , Jr (1975), *Planning Neighborhood Spaces with People*, Van Nostrand Reinhold Company Inc., second edition.

> " There is no simple list of human needs, no single theory to explain them, no clear consensus about the principles underlying human motivation. Moreover, many writers on motivation have developed full-scale motivational theories without even referring to the concept of need; and amongst those who do hold needs to be both real and important phenomena, there are many significant differences of opinion as to what "needs" actually are. The range of this differences of opinion as to what best by Madsen, who examined some twenty major theories of motivation (1959): he then felt compelled to bring these up to date with a further volume examining another twenty or so more recent theories about human motivation (1974). Even after completing this monumental task, he felt bound to admit that he had not done full justice to the range of theories in this field."[1]

Islam, as a major influence on Egyptians' perception of outdoor recreation, is sought for three reasons. First, a psychological aspect, to restore the mental balance of the person, which in turn will be reflected on the society. Second, a social aspect , to strengthen the social ties between the members of the society. Third, an economical aspect, to increase the nation's productivity and sufficiency. The first two aspects play a considerable role in preparing the individual and the nation to achieve the third goal. Thus Islam limits their meaning to aspects that help the Moslem to follow a serious path and to fulfil his duties in this life. Two companions of the prophet (PBUH) doubted that they were hypocrites. They complained that they were very serious when they were with him reminding them of Paradise and Hell. Though when they were at their homes, they started to enjoy life, playing with their wives and children and they forgot many things. The prophet (PBUH) said that 'if you carry on the invocations as when you are with me, the Angels would shake your hands when you were on your beds and in your journeys, but Hand Allah it is an hour and an hour (and repeated the last words three times).[2] These words interpreted by Islamic scholars as an hour for recreation and an hour for worshipping and invocation. The recreation hour is supposed to revitalise the person to help him in fulfilling the hour of worshipping.

Finally, an overall definition to recreational needs was suggested by Hull, that recreation activities influence health by promoting positive moods.[3] A universal need of recreation participation is to be in good health. Health has been defined in a broad holistic sense, it refers to a state of well-being which encompasses emotional, physical, social and spiritual health.[4] From the previous literature it has been cleared that an open space for recreation

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[1] Institute of Family and Environmental Research and Dartington Amenity Research Trust, (1976), *Leisure Provision and Human Needs: Stage 1 Report* (for DOE), IFER/DART, London, Item 2.5.

[2] Abu Huthaifah, Ibrahim, (1987), *Al Lahwo Al Mobah*, (The permitted leisure), Tanta.

[3] Hull, R. B. (1990), Mood as a Product of Leisure: causes and consequences, Journal of Leisure Research, vol. 22 pp. 99-111.

[4] Caldwell, L. L. and Smith, E. A. (1988), Leisure: An overlook component of health promotion, Canadian Journal of Public Health, vol. 79, April-May; and Headley, B., Holstrom, E. and Wearing, A. (1985), Models of well-being and ill-being, Social Indicators Research, vol. 17, pp. 211-234.

provides opportunities for adjacent populations to have recreational experiences which make possible the attainment of a number of goal objectives and need satisfactions. These needs could be generally classified according to the previous definitions and the Islamic concept of recreation into the followings:

4.1.1 The psychological and emotional needs.

4.1.2 The physical needs.

4.1.3 The social needs.

4.1.1 The Psychological and Emotional Needs:

> "Recreation has always afforded an outlet for self-expression, for release, and for the attainment of satisfaction in life. During the last few decades, however, the marked and rapid changes that have taken place in our social, industrial, economic, and political life have magnified the importance of recreation and have greatly affected the recreation life of the people." [1]

To recreation in general and to outdoor recreation in particular outdoor recreation ascribes great value, of almost a therapeutic kind. Some stress that could be released in outdoor recreation when the individual can test his physical fitness and his ability to cope with nature. Still others emphasise the opportunity which outdoor recreation gives for self-fulfilment and individual choices. Recreation is also considered by some to have significant value in combating or preventing juvenile delinquency.

In Egypt, as in most developing countries, no one can deny the serious emotional and nervous tensions that exist. Some people find release in outdoor recreation is equally obvious. But it is by no means clear that everyone, or even a majority of persons, suffer from severe strains and stresses; moreover, a substantial proportion of the population apparently rarely or never engages in outdoor recreation. It is at least arguable that it is the well-adjusted, not the ill-adjusted, who both experience outdoor recreation and gain most from so doing.

Specialists in health and recreation field have traditionally stressed the important influence of recreation on mental health. The psychological and emotional needs are integral, if not explicit part of many recreation theories is a likely product of most recreation experiences. In fact the benefits resulting from an emotion induced by a recreation experience may be one of the major justifications to society for the expenditure of its resources on the provision, management and study of recreation. The emotional and psychological needs of participants and societies should not be considered separately. They largely depend on the participants' physical condition and needs.

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[1] Clawson, Marion and Jack L. Knetch (1966), *Economics of outdoor Recreation*, the John Hopkins press, Baltimore, pp. 30.

4.1.2 The Physical Needs:

It is not only the person's need that controls his or her choice of recreation participation, but also the physical condition. Variations in activities selected by the person are also due to his or her biological dispositions and early socialisation experiences. For example, a person may have a tendency to participate in the types of activity that his biological conditions allow him to be good at and, therefore, he develops a feeling of competence in participating.

An increasing demand for physical activities arises from man's changing way of life. There has been a diminishing requirement for physical effort, both in his occupation and his daily life, as a direct result of scientific and technological progress. Fulfilling the physical needs of man kind is important for both individuals and societies. At the individual level it provides the participant with personal enjoyment and growth, while to the society it leads to social harmony/integration and social growth/change. This does not mean that all physical recreation activities lead to the previous benefits for both individuals and societies.

Physical outdoor recreation activities are essentially recreation involving physical effort. They refer to physical involvement which is voluntarily chosen and which produces intrinsic rewards. This implies that physical recreation and participation provide something akin to enjoyment for the participants. Physical outdoor recreation are defined in the form of structured games or play for the purpose of recreation or amusement in recreation time which contain an element of competition or challenge against self, opponents or the elements. It is generally believed that the most satisfactory types of physical activities are natural ones involving the whole body such as walking, running, cycling and swimming. There seems little doubt that recreation time physical activities have a vital role to play in modern life. They may be an instrument of education for the training of character; they may provide harmless outlets for aggressive and socially harmful impulses; or they may be a therapeutic agent in the maintenance of physical health and fitness.

What is gained from the participation of physical outdoor recreation could not be denied, the Wolfenden report[1] in its general introduction, examines some of the main attributes which are claimed to be gained from participation in the physical activities. These attributes include reduction in development of criminal habits by young people; satisfaction of man's need for play; maintenance of good health; development of beneficial qualities such as courage, endurance, self- discipline, determination and self-reliance; character building; acquisition of sportsmanship and code of ethics; aesthetic

[1] Wolfenden Committee (1960), *Sport and the Community*, Central Council of Physical Recreation.

value; general enjoyment and satisfaction; and participation in a broader range of activities.

For Egyptians in general and Cairenes in particular, the importance of the physical needs for recreation, stems from their proverb that says "the fit mind is in a fit body", which means to have the mind fit you should start with the body. Also the prophet (PBUH) encouraged physical activities, through his saying 'teach your children swimming, horses riding and archery'. Despite such theoretical attitude to the physical involvement of Egyptians in outdoor recreation, their actual participation in such activities is under question through the research. In Egypt the upper and upper middle class Egyptians encourage their children to practice physical recreation in private clubs. For the lower and part of the middle class, playing football in the streets is a habit. Aside of football, no physical recreation is expected to be practised.

From the previous physical needs, it has been found that within the wide range of activities to choose from, participants will select those that are suitable to his or her biological, socialisation experiences and the social-situation environment he or she is living in. Hence, recreation is considered a basic human need, contributing to all aspects of a person's being not only the emotional, intellectual, physical and spiritual, but also the social. Recreation contributes to personal pleasure and satisfaction and it involves a spectrum of human endeavours and is considered an expression of the self.

4.1.3 The Social Needs:

Social and society are two words nearly alike to each other. Without the social needs no society exists. These needs exist where people from same culture fulfil them to form society. Social needs are fulfilled through sharing the same culture, behaviour, and beliefs. The interrelation of these things forms a society. It is also evident that one aspect of human kind's nature is the strong desire to communicate. This is represented in social needs through being with others in an open space, seeing and being seen, watching and being watched and being part of life for all stages, beside making friends and feeling of worthiness and companionship.

Even if social need is not ranked as the most important reason for recreation participation, it nevertheless is considered an important one. This is clearly evident in past research findings. Knopp, for example reported that solitude was one of the leading motives of participation in outdoor recreation for urban residents, whereas social interaction served the same function for people in rural farm areas. While social need is considered an essential part of every one's recreation experience throughout life span, it seems

particularly critical to the elderly.[1] Thus, it has been demonstrated that physical and psychological well-being of old persons depends on their opportunities for social interaction.

Moreover, Crandall reviewed past research on social needs reported data from two studies which found significant correlation between items designed to estimate social recreation and the total recreation experience.[2] These studies explored the relationship between social recreation and total experience. On the basis of his review, he concluded that "the case for the importance of social recreation based on the literature is a strong one". In his research the only item that was as important as "things done with friends" was "the feeling about the amount of time you have for doing the things you want to do". Since "things done with friends" was the best social item, Crandall concluded that the best recreation activities seem to be those that involve both friendly interaction and an activity.

Another way of classifying human needs with relation to recreation is through Maslow's theory of human needs.[3] Maslow's theory is popular with the assumption that recreation can help gratify higher order needs that cannot be met in more restrictive, non recreation environments. It is argued that people in truly recreation experience, experience a sharp sense of control over action and the environment, a loss of sensation of time, a harmony and union between self and environment, a lessening of personal problems and a more positive self appreciation. Although these arguments were more related to wilderness experience of nature, they could be related, in a limit, to outdoor urban spaces for recreation. Human needs and their relation to outdoor recreation could be summarised in Maslow's triangle.[4]

Maslow offers a list of needs which are inscribed in a hierarchical fashion. The physiological appears as a subset, followed by others up ladder according to their potency. Maslow describes them as acting upon people along the following lines: the needs lower on the diagram exert stronger pulls than those higher up, which is especially demonstrable when a number of needs are frustrated. The physiological needs are strongest of all. If they are substantially unfulfilled, they block out recognition of all other needs. To relate this triangle to outdoor recreation, figure (4.1) is supposed to illustrate how the "why" of recreation participation can be explained at different levels.

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[1] Knopp, Timothy B. (1972), Environmental Determinants of Recreation Behavior, Journal of Leisure Research, vol. 4, pp. 129-138.

[2] Crandall, Rick (1979), Social Interaction, Affect and Leisure, Journal of Leisure Research, vol. 11, pp. 165-181.

[3] See chapter one for more information about Maslow's hierarchy.

[4] See chapterIfor the triangle of needs

As shown in the figure, the most fundamental cause of a person's recreation behaviour is his biological need, his inherited background. However, biological factors are insufficient to explain recreation behaviour, because such factors only set the stage for recreation pursuits. Within one's biological dispositions, early socialisation or social learning experiences influence what specific activities a person becomes interested in. Biological forces and early socialisation experiences jointly shape an individual's personality, which perhaps best summarises the foundations of all human behaviour including recreational behaviour.

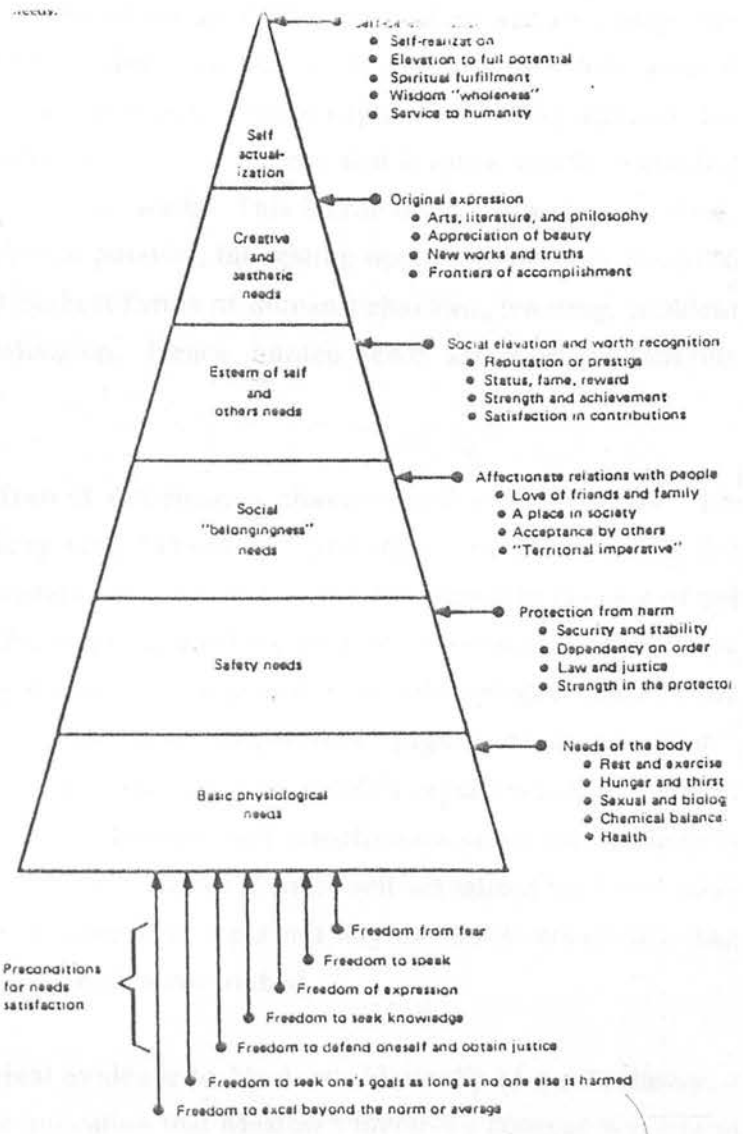

Fig. (4.3) Maslow's human needs with relation to recreation.[1]

Through Maslow's theory, the second factor of reasons will be discussed. Maslow's hierarchy of needs is one commonly accepted theory of motivations, which is supported by little directly relevant empirical research. This theory consists of five basic needs levels with an extra level forming a hierarchy. Maslow maintained that his theory of motivation is holistic and dynamic applying to both work and non-work spheres of life. It has been adapted by authors of recreation management text as a typology of what visitors want from the recreation experience.[2]

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[1] Gold, Seymour M, (1980), *Recreation Planning and Design*, Mc Graw-Hill, Inc. USA.

[2] Jubenville, A. (1978), *Outdoor Recreation Management*, Philadelphia: W. B. Saunders Company, also Edington, C. R. and Williams, J. G. (1978), *Productive Management of Leisure Service Organisations*, New York: John Wiley and Sons.

4.2 Motivations for Recreation:

In the research, recreation motivations are factors that drives and encourage the outdoor activity to exist. Maslow's ideas are useful in developing a behavioural interpretation of recreation. This conceptualisation helps explain increasing demands for luxury items and recreational experiences in an economy that is quite rapidly removing constraints or gratification of lower level needs. This hierarchy along with judgement, permit to postulate that in recreational pursuits, interesting opportunities were found to engage in the most complex and highest forms of human behaviour, learning, problem solving, creativity and self actualisation. Hence, human needs' affect on motivations could not be denied.

Maslow suggested that two different dimensions characterised esteem needs. He classified them into two subsidiary sets; "These are, first the desire for strength, for achievement, for adequacy, for mastery and competence, for confidence in the face of the world and for independence and freedom. Second we have what we may call the desire for reputation or prestige defining it as respect or esteem from other people, status, fame and glory, dominance recognition, attention, importance, dignity or appreciation". Maslow's hierarchy needs was applied in recreation to people's experience of wilderness recently in investigating the relationship between self actualisation needs and wilderness users.[1] It has been found that wilderness users were more self-actualised than non-users and the same result was found for those who were not any more self-actualised than occasional users. No other Maslow's needs were studied.

In another attempt to find empirical evidence to Maslow's hierarchy of needs theory, a study done by Driver and Tocher indicating that Maslow's hierarchy concept was useful for developing a behavioural interpretation of recreation, but also specifying other possible motivations for participation in recreation activities.[2] Driver developed a larger number of well tested scales to measure the range of recreation motivation dimensions believed to exist for different activities. The scale has been widely accepted as standard in the relevant research fields and used by numerous studies of recreational motives as well as recreation experience reference.[3] Although the scale perhaps included a greater range of needs or motivations than would be subsumed under the Maslow's theory, it does not appear to include an appropriate measure of peak experience aspect of what Maslow described as self-actualisation. A more recent attempt to develop a scale was made by

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[1] Young, R. A. and Crandall, R. (1984), Wilderness Use and Self Actualisation, Journal of Leisure Research, vol. 16, pp. 149-160.

[2] Driver, B. L. and Tocher, S. R. (1970), Toward a Behavioral Interpretation of Recreation Engagements, with Implications for Planning, in B. L. Driver (ed.) Elements of Outdoor Recreation Planning, University Microfilms Michigan, Ann Arbor, pp. 9-31.

[3] Driver, B. L. (1976), Quantification of Outdoor Recreationists' Preferences in Betty van der Smissen (ed.), Research and Environmental Education, Penn State Series II, University Park, Pa., pp. 165-187.

Beard and Ragheb.[1] The study examined motivation from a different perspective based on several basic motivational theories of stimulus seeking, stimulus avoidance relaxation and competence effecting. As mentioned earlier in the chapter, recreation motivations drive participants to achieve specific expected satisfaction according to their needs. The expected satisfaction from the whole recreation experience should be studied with relation to needs and motivations of recreation.

4.3 Recreation and Satisfaction :

> If any argument concerning the nature of leisure exists, it is the common belief that leisure is a positive experience accompanied by satisfying and pleasurable moods, emotions, or feelings (Mannel 1980 : 77)

Clearly, the satisfaction of people's needs through recreation opportunity is one of the principles behind providing recreation services. Satisfaction represents a reason and a goal or an outcome at the same instance. The attractiveness of the goal object related to the expected value to be received from attaining it. Although the enjoyment and satisfaction of users are frequently stated goals of recreation management, these constructs are complex and difficult to define or measure. Their complexity stems from the fact that humans do not have the same degree of needs to satisfy which once again respond to Maslow's needs.[2] Despite this, some components that underlie satisfactions, could be measured, such as; specific environmental conditions (good weather, suitable climate for the outdoor recreation activity), personal recreational goals and objectives (enjoy self in outdoors, mental rest and relaxation) and the opportunity to participate in other recreational activities. It is noted that these components are broad and general aspects that do not deal and cannot indicate to the degree of satisfaction.

It is argued that the degree of satisfaction differs between people. Accordingly it is difficult to answer a question with full satisfaction, while it is easier to answer with unsatisfied. This could lead that the two opposites could be referred to not as satisfied and unsatisfied but as unsatisfied and not unsatisfied. Kaplan studied the relationship between the expected psychological rewards and perception of outdoor recreation environments.[3] In this study, the subjects' preferences for nature correlated positively with 'desire to be alone', 'away from other pressure', and with 'liking doing things outdoors or close to nature'. This may imply that those who seek peace and quiet prefer nature as well. However the idea of solitude is a complicated concept. While it was

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[1] Beard, J. G. and Ragheb, M. G. (1983), Measuring Leisure Motivation, Journal of Leisure Research, vol. 15, pp. 219-228.

[2] See chapter one page 18.

[3] Kaplan, S. (1977), Tranquillity and Challenge in the Natural Environment, in Children, Nature and the Urban Environment, USDA Forest Service General Technical Report NE-30.

implied that those who prefer escape-into-nature types of experience (such as prefer wilderness, hikers, hunters,.. etc.) seem to prefer solitude, it was also found that only very small proportion of them usually practice in such activities alone. Thus, solitude may be defined in terms of one's own social company.

The psycho-physiological determinant represented by the three aspects of needs motivations and expected satisfaction represent the explanatory approach of research within the recreation field. This approach of research deals with the 'why' and is not easy to quantify. In the recreation research several attempts have been achieved to quantify this determinant and most of these attempts were based on Maslow's theory. The forthcoming researches represent the most important attempts in the quantification of the psycho-physiological determinant. By the end of the of this chapter a suitable way of quantification will be selected to be related lately to the Cairenes' context.

Based on, Maslow's theory and the classification of outdoor recreation and motivations, many researchers have offered scales to represent the multidimensional character of recreation motivation.[1] A major part of these efforts has been to identify the 'latent' or underlying dimensional structure of recreation motivation using factor and cluster analysis. According to Rick Crandall, Peterson's work classifies motivation for outdoor recreation to four broad general motives and several specific ones. These might be called:

1) Extroversion: being with others and being creative, 2) Privacy and pastorialism: anti-civilisation, liking nature and being alone, 3) Achievement: sharing self-worth, exercise, achievement and skill development and 4) Hedonism: thrill seeking and avoiding boredom. Three single item "cluster" were 1) learning about new things, 2) doing something simple and 3) doing something with the family. This brief summary does not cover the full scope of Peterson's work, but does suggest one way some of the motives may be related for some populations.[2]

On the other hand, Iso-Ahola reviewed a number of related studies and concluded that intrinsically motivated recreation behaviour often takes place in social contexts because many recreation activities are so structured that they require the presence of others and that many people define their perceived competence of interpersonal competence. These findings support the notion that social interaction is an important form of recreation motive, although it is not always ranked as the most important one. He also argued that

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[1] ibid., Beard, J. G. and Ragheb, M. G. (1983), moreover, Driver, B. L. and Brown, P. J. (1980), Probable Personal Benefits of Outdoor Recreation, in Presidents' Commission on Americans Outdoors-A literature Review (pp. Values 63-70), Washington, D. C.: U. S., also, Tinsley, H. E. A., and Kass, R. A. (1979), The Latent Structure of Need Satisfying Properties of Leisure Activities, Journal of Leisure Research, vol. 11, pp. 278-291.

[2] Crandall, Richard (1980), Motivations for Leisure, Journal of Leisure Research, Vol. 12, No. 1, pp. 45-54.

more attention should be paid to the social aspects of recreation in planning and management. He criticised that while the social interaction was found to be equally or more important than such often stressed aspects, as feelings about sports and recreation facilities, the main emphasis on recreation service is still often placed too heavily upon facility management.[1] Moreover, participants could be participating in a specific recreation activities driven by previous desirable experience or as a matter of habit.

Another research by Ulrich and Addoms, who examined the psychological and recreational benefits of a residential park through questionnaire, open ended interviews, a photograph rating and observation of the activities in a park within a dormitory suggested that at least three general dimensions of benefit are linked with the park: passive nature contact, social interaction and physical exercise.[2] The questionnaire; which was constructed based on the preliminary interviews, consisted of perceived benefit statements which respondents were asked to respond to a six-point scale on the basis of how important each statement was to each of them. Also as part of the questionnaire, respondents were asked to rate on six-point scale the degree to which they enjoyed various, physical attributes such as trees and grass. This is the assessment of the extent to which specific attributes of the park's physical environment were experienced as positive. Subjects were also asked to provide ratings of familiarity and aesthetic preference for a series of photos of the park and its environment. The results indicated that the most prominent park benefit was passive nature-contact, environmental variety and tension escape. Some natural attributes of the park were also highly associated with the site's nature quality and open space. Other noteworthy findings are: socialising in the park correlates with active recreation but not with serious exercise, sex-differences in usage of the area were found significant, etc.

The findings of this study have important implications in directing park planners' attention to providing appropriate spaces for desired types of experience for the area residents. The findings also support the notion that benefits such as 'passive nature' can be substantially derived by residents from a relatively small park in high density residential complexes as an alternative to travelling to other natural recreational areas further away. A significant step was taken by this study to include non-users as a part of the sample. However, this may have been possible because of the confined nature of the study site which allowed easy identification of surrounding residents to whom the parks is accessible.

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[1] op cit., Iso Ahola (1980),

[2] Ulrich, R. S. and Adoms, D. L. (1981), Psychological and Recreational Benefit of a Residential Park, Journal of Leisure Research, First Quarter, pp. 43-65.

An important notion that arises from the findings of the previous studies is the potential assumption that the perceived natural attractiveness increases from city parks to wilderness areas and the inverse relationship between the perceived natural attractiveness of the environment and the experience of the environment as a 'social system'. In other words, on the scale of urban (or the least natural) to the most natural, the person's expectation for 'solitude' experience increases while the expectation for 'sociability' and 'setting for action' decline. However, it was pointed out that the reason people in general may tend to perceive city parks or open spaces for recreation as settings for action may be because, at present, it was uncommon to provide room for other modes of experience in these places when they were planned.[1] Whereas the research is devoted to urban open spaces, it is also emphasised through this point the importance of social aspects in outdoor recreation.

Considerable research has been directed towards understanding why individuals as participants, participate in recreation activities and the personal satisfaction resulted from that participation, in addition to another attempt to cope with highly unsatisfactory life situation. This was studied more in the field of activities and satisfaction, since satisfaction is considered an outcome as well as a reason, its relation to activities could not be ignored. For instance, Tinsley and Kass have suggested that there are some needs which are recreation general- any activity can satisfy them. Others are specific to specific activities.[2] Related topics include substitutability based on motives as well as changes in motives with experience, or differences between the stereotyped reasons that attract someone to an activity and the satisfactions that activities actually provide. Hence, reasons do not only directly affect people, but also activities. Early qualitative attempts at understanding the value of recreation activity often attempted to identify the needs met or the satisfactions provided by all recreation activities.[3] This preliminary phase in satisfaction research gradually gave way to research which attempted to link satisfactions to activities clustered on the basis of participation rates.

Fundamental to these research efforts has been the assumption that a particular recreation activity may provide a variety of satisfying experiences.[4] According to Bryan, a broad range of behaviours and orientations attend any recreation activity.[5] Hence, satisfaction

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[1] op cit., Iso-Ahola, S. E., (1980).

[2] Tinsley, H. E. A., and Kass, R. A. (1976), *A Factor Analysis of the Need Satisfying Properties of Leisure Activities*, Presented at the American Psychological Association Convention, September 1976, Washington, D. C.

[3] Kaplan, M. (1960), *Leisure in America: a social inquiry*, New York: John Wiley and Sons.

[4] Driver, B. L. and Tocher, R. (1970), Toward a behavioral interpretation of recreational engagements with implications for planning, Elements of Outdoor Recreation Planning, Ann Arbor, Michigan: University of Michigan Press.

[5] Bryan, H. (1977), Leisure Value Systems and Recreational Specialization: the case of trout fishermen, Journal of Leisure Research, vol. 9 no. 3, pp. 174-187.

research must consider the possibility that within any activity there may exist subgroups of users who receive different satisfactions. He also argued that variability in satisfactions within activities may be the product of varying levels of commitment to that activity. In addition, research has shown that the satisfactions derived from engaging in one activity are usually different from the satisfactions derived from engaging in a different activity.[1] Moreover, research by others has addressed the fact that reasons for recreation participation are generally attributed to the specific satisfactions which the participant knows, values, and expects from engaging in a specific activity.[2]

Moreover in the area of activities, individuals and group differences, Knopf, Driver and Bassett, used data from a national survey to examine fishing among other outdoor activities, in terms of motives to participate and found out that numerous satisfying experiences are expected and desired from a fishing outing and from other outdoor activities but some specific experiences are valued more highly than others. The data also indicated that escape-related preferences are strong motivating forces nation wide for fishing and engaging in outdoor activities. The researches concluded that although the national study did not include "Experiencing Nature, this type of Nature" could have been very important too. It was found that these desired experiences are influenced by home and work environments and that within a broader package of goals, some are more important than others in a given situation.[3]

On the other hand, not only satisfaction is related to the participated activities, but also to participants' socio-demographic characteristics. In the field of activities and group differences with relation to recreation satisfaction, some researchers have examined reasons for variability in satisfactions within activities and group differences. They have suggested that different types of social groups define the meaning of objects so that all group members interpret those objects in a similar fashion[4], while recent research has documented variability in satisfactions between social group types participating in the same activity.[5] However, elements of social compulsion are present even for recreation. People seeking similar outcomes from a recreation experience differ in importance attached to these outcomes. One person may be savouring opportunities to ' escape', 'experience nature', and 'socialise' simply for 'something to do'.

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[1] op cit., Hawes, D. K. (1978).

[2] Schreyer, R. and Roggenbuck, J. W. (1978), The Influence of Experience expectations on Crowding Perceptions and Social-Psychological Carrying Capacities, Leisure Sciences, vol. 1 no. 4, pp. 373-393.

[3] Knopf, Richard C., B. L. Driver and John R. Bassett, (1973), Motivations for fishing, In *Transaction of the 38th North American Wildlife and Natural Resources Conference*, p.p. 191-204, Washington, D. C. : Wildlife Management Institute.

[4] Lee, R. G. (1972), The Social Definition of Outdoor Recreation Places, In Burch, W. R. , Cheek, N. H. and Taylor, L. (eds.), Social Behavior, Natural Resources and the Environment, New York: Harper and Row Publishers, Inc.

[5] Buchanan, T., Christensen, J. E. and Burge, R. J. (1981), Social Groups and the Meanings of Outdoor Activities, Journal of Leisure Research, vol. 13, no. 3, pp. 254-266.

One line of research has employed a series of scales to attempt to measure the dimensions of outdoor recreation satisfaction. Referring to recreation in general rather than to particular activities Bread and Ragheb have identified six components of perceived satisfaction as follows: [1]

a) Psychological: a sense of freedom, enjoyment, involvement and challenge.
b) Educational: intellectual challenge and knowledge gains.
c) Social: rewarding relationships with other people.
d) Relaxation: relief from strain and stress.
e) Physiological: fitness, health, weight control and well-being.
f) Aesthetic: response to pleasing design and beauty of environments.

In relating such outcomes to the needs stated earlier, it shows that satisfaction depends largely on needs. In other words, the six components of the perceived satisfaction cited by Bread and Ragheb could be related to the three needs classified in the chapter. First the psychological and emotional needs will be fulfilled through the psychological, educational, relaxation, social and aesthetic perceived satisfaction. Second, the physical needs will be achieved through the relaxation and physiological perceived satisfaction. Finally, the social needs will be fulfilled through the social perceived satisfaction.

In conclusion, Recreation satisfactions, hence, are considered components of an overall global feeling of satisfaction, i.e. 'I am satisfied with my experience today'.[2] The expected satisfaction from the recreation experience itself depends on the four determinants of the paradigm, but most of all the activity participated.

In one of the earliest studies, Witt and Bishop, presented subjects with 13 different activities and asked them to rate the degree to which they would feel like participating in each of them. It was reported that out of five characteristics of the "needs theory"; namely, surplus energy, catharsis, compensation, relax and task generalisation, the first three were more useful than other theories in explaining the relationship between antecedent situations and subsequent recreation participation.[3] Other approaches measure needs more directly. There have been three separate lines of research and some single studies. The first approach is the longest which was used by Driver and many of his colleagues. They usually deal with outdoor recreation activities and participants. This is more related to the study and will be further explained in expansion, while some others deal with reasons for participation in the favourite recreation activity.

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[1] Beard, J. G. and Ragheb, Mounir(1980), Measuring Leisure Satisfaction, Journal of Leisure Research, no. 12, pp. 20-33.
[2] Hawes, D. K. (1978), Satisfactions derived from leisure-time pursuits: and exploratory nation-wide survey, Journal of Leisure Research, vol. 10 no. 4, pp. 271-287.
[3] Bishop, D. W. and Wit, P., A. (1970), Sources of Behavioral Variance During Leisure Time, Journal of Personality and Social Psychology, vol. 16, pp. 160-170.

The second program of recreation needs is being proceeded by Tinsley, Barret and Kass. They have reported an investigation in which they found out specific relationship between 42 predetermined recreation needs and five popular recreation activities, which indicates that different activities were perceived to satisfy the same need to a different degree.[1] Tinsley and Kass replicated and extended these results by adding five additional recreation activity groups and investigating the possibility that there may be sex related differences in participation of the need-satisfied properties of recreation activities. Although no sex differences were observed, the relationship between need satisfied dimensions and the activity participated by the respondent were found significant. They found that jogging highly satisfied the needs for autonomy and self-actualisation and generally did not satisfy the needs for intellectual aestheticism and autonomy. Tennis was found to be high with respect to the need for self-actualisation and exercise and low with respect to intellectual aestheticism, autonomy and companionship (it was suggested that although it takes at least two people to play, socialising between players is not very important). Bicycling is rated high for autonomy while rated low for intellectual aestheticism and power. It has also been concluded that 'exercise' represents the negative pole of the bipolar aestheticism factor.[2]

The third line of needs research is pursued by London, Crandall and Fitzgibbons. This originally focused on social needs, which is more related to the Egyptian context. In their study they found that in addition to the activities and the needs they satisfy, individuals differences also play a role in the degree to which various activities are perceived to satisfy given needs. For example, the finding demonstrates that one group of individuals may regard sports as primarily competence producing, another group may view them as low in both aspects.[3] Similar results were also obtained from another study through testing other subjects populations. Iso-Ahola praised the practical importance of London's finding in demonstrating the acquiring information about how well a given recreation program meets the intrinsic recreation needs of those surveyed is essential in the provision of the recreation services that best satisfy most people's intrinsic motivations.[4] Simply asking people to state their recreation preferences, which is done conventionally, is inadequate. London's findings also address the significance of social experience. It was found that positive interpersonal involvement (developing friendship, co-operating with others) is one of the three dimensions of recreation needs.

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[1] Tinsely, H. E. A.., Barrett, T. C. , and Kass, R. A. (1977), Leisure Activities and Need Satisfaction, Journal of Leisure Research, vol. 9 p.p. 110-120.

[2] Tinsley, H. E. A. , and Kass R. A. (1979), The Latent Structure of the Need Satisfying Properties of Leisure Activities, Journal of Leisure Research, vol. 11 pp. 278-291.

[3] London, Manuel; Crandall, Rick and Fitzgibbons, Dale, (1977), The Psychological Structure of Leisure: Activities, Needs, People, Journal of Leisure Research, vol. 9 pp. 252-263.

[4] op cit., Iso-Ahola

There are many other studies relevant to this area. Other studies findings also provide supportive evidence. Ritchie finding indicates that social recreation is a key dimension of recreation participation.[1] Kelly found that 'relational' is the second most important group of reasons for recreation participation. Under this category 'enjoy the companions' and 'it strengthens relationships' are the most two important items.

In conclusion, table (4.1) represents a modification of Tinsley, Driver and Peterson which tries to capture absolute endpoints on a probabilistic scale. Most of the items in this table, came from Driver's item pool with a few generated by Crandall as examples.[2] The 17 categories are not listed in order of importance or frequency of use. One priceless job would be a more methodical organisation of items from different sources. A second thing that becomes obvious from looking at this list is that the motivations vary from the specific (e.g., meeting new people) to the very general (e.g., self-actualisation). The different categories are not directly associated. Some sets of items are very similar while other categories include items which cover potentially different motivations. The items can also be designed to measure needs, feelings and satisfactions or other quite different aspects of reasons. While few reasons for recreation are unwanted completely, many of these types of reasons could be expanded, condensed or recognised.

1. ENJOYING NATURE, ESCAPING CIVILIZATION
   To get away from civilization for awhile
   To be close to nature
2. ESCAPE FROM ROUTINE AND RESPONSIBILITY
   Change from my daily routine
   To get away from the responsibilities of my everyday life
3. PHYSICAL EXERCISE
   For the exercise
   To help keep me in shape
4. CREATIVITY
   To be creative
5. RELAXATION
   To relax physically
   So my mind can slow down for awhile
6. SOCIAL CONTACT
   So I could do things with my companions
   To get away from other people
7. MEETING NEW PEOPLE
   To talk to new and varied people
   To build friendships with new people
8. HETEROSEXUAL CONTACT
   To be with people of the opposite sex
   To meet people of the opposite sex
9. FAMILY CONTACT
   To be away from the family for awhile
   To help bring the family together more
10. RECOGNITION, STATUS
    To show others I could do it
    So others would think highly of me for doing it
11. SOCIAL POWER
    To have control over others
    To be in a position of authority
12. ALTRUISM
    To help others
13. STIMULUS SEEKING
    For the excitement
    Because of the risks involved
14. SELF-ACTUALIZATION (FEEDBACK, SELF-IMPROVEMENT, ABILITY UTILIZATION)
    Seeing the results of your efforts
    Using a variety of skills and talents
15. ACHIEVEMENT, CHALLENGE, COMPETITION
    To develop my skills and ability
    Because of the competition
    To learn what I am capable of
16. KILLING TIME, AVOIDING BOREDOM
    To keep busy
    To avoid boredom
17. INTELLECTUAL AESTHETICISM
    To use my mind
    To think about my personal values

Table (4.1) Scales of motivations affecting outdoor recreation, Driver's pool.

[1] Ritchie, J. R. B. (1975), On the Derivation of Leisure Activity Types-A Perceptual Mapping, Journal of Leisure Research, vol. 7 pp. 128-140.

[2] op cit., Crandall, R. (1980).

Summary

Chapter four aims to explore the psycho-physiological determinant for recreation. In other words, the explanatory approach of dealing with recreation experience will be discussed.

Historically, many researchers in the field of recreation field have affirmed the view of the importance of recreation in its global manner need for man kind. The nature and severity of the emotional stresses and strains of modern life have been emphasised. They agree that human organism, seeks diversion, escape anxiety, isolation, disengagement as modes of coping with stress, frustration or other threats to the biological or psychological integrity of the individual. It does seem clear that modern life is more ordered in terms of time than was life in earlier periods emphasising the psycho-physiological needs for recreation.

A brief overview of the different types of past research is provided. The fundamentals of the psycho-physiological determinants clarifies both the sociological and psychological conceptions of recreation. Sociologists explain, recreation behaviour in terms of social and situation influences, which are considered as exterior forces. They attempt to understand the animated and related factors forming and influencing recreation behaviour.

On the other hand, psychologists study the recreation phenomena from within. Their purpose is to try to understand the 'Why' of recreation behaviour. They attempt to reach a general understanding of why people do what they do and why they choose to participate in specific types of activities at specific recreation settings. Attempting to reveal the underlying psychological causality of recreation participation, recreation research scientists directed their research at the area of recreation needs, motives and expected satisfaction of recreation participation.

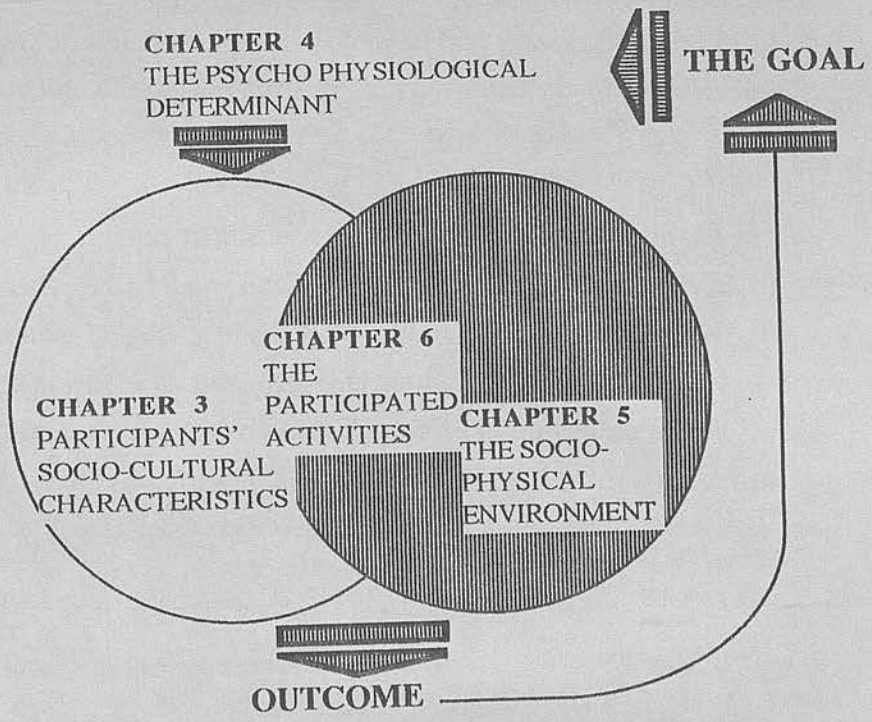
Needs are seen as the cause of motivations. Many psychologists who see the motivational aspects of human needs as drives. Which are produced to regain individual's equilibrium that has been lost in the stress of modern life. Dealing with needs which symbolise reasons of participation, many researchers have attempted to categorise participants' needs in outdoor recreation. The previous research directed towards the study of human needs showed that it is three facets; physical, psychological and social needs. An important finding was that the subjects' feelings about social aspects of recreation were as equal or even more important than such aspects as the physical and psychological ones. This implies that people are as much, if not more, concerned about social interaction during their recreation participation as they are involved in other recreation activities. The social need of recreation is revealed as the most important one for both individuals and societies.

Maslow's theory of motivation for the hierarchy of needs is examined and discussed in relation to behavioural recreation. Research has shown that high-order and low order needs form their own cluster. An individual's desire to do what he wants and is capable of doing is characteristic of higher-order needs. It has been also cleared that motivations for outdoor recreation were mostly related to wilderness users.

Expected satisfaction for recreation experience being the third reason for participation, is consequently examined. Studies pointed out to the benefits of both wilderness and residential parks in fulfilling human needs. They have classifies the expected satisfaction into diverse categories. Ragheb and Bear classification was selected for its relationship to the needs' facets. This provided a wider scope for understanding the way needs are fulfilled by satisfaction.

On the basis of the above examination of theory and research in the three components of the psycho-physiological determinant, it has been found that quantification of this determinant is needed. The aim is to measure those subjective values. Research undertaken in the field of quantifying the determinant was explored. Driver's method has been selected being the most recent and specialised method based on Maslow's theory and concerned particularly with recreation. This selected method has had to be modified and a method is devised related to the Egyptians' socio-cultural characteristics as well as urban open spaces.

CHAPTER FIVE:
5. THE SOCIO-PHYSICAL ENVIRONMENT



THE RECREATION PARADIGM

CHAPTER FIVE

5. THE SOCIO-PHYSICAL ENVIRONMENT

"But fear God and obey me; And follow not the bidding
of those who are extravange, who make mischief in the land,
And mend not (their way)" [1] S. XXVI, (150-152)

According to Knopp, the environment is deserving of more attention simply because it can no longer be taken for granted. As a society, we have at our disposal the means to make tremendous changes in our environment. How and where we make the changes, should be based on a knowledge of how the environment functions to provide for human needs. Such needs should not interfere with the environmental balance and others needs. Any changes should be attained with respect to the environmental balance. Knopp also stated that the environment contains numerous elements include both the physical and social. The recreationist seeks out these elements in much the same manner as the shopper goes to the supermarket, each individual selects a different combination of items; depending on his needs, and seldom buys the entire store. An elementary kind of logic tells us that a recreationist will be attracted toward another location primarily because it contains elements for which he perceives a need that is lacking at the location he occupies.[2] Following this line of reasoning, recreation attributes could be perceived as a series or mix of attractions sought by patrons.

Outdoor recreation is strongly related to the physical and social environment, which allows for both variations in styles and some explanation of regularities which is based on the life course. The importance of both types of environment is very noticeable in their relation to the outdoor recreation. The physical environment is meaningful because it offers an arena for social interaction, reinforcement, and bonding. The action in the outdoors is highly responsive to, even oriented to, social stimulation. The attempts to model choice in the outdoor recreation areas will be inadequate without analysing the

[1] *The Holy Qur'an: Text, Translation and Commentary,* by Ali, Abdullah Yusuf, (1946), Published in U.S.A. by Khalil Al-Rawaf.

[2] Knopp, Timothy B. (1972), "Environmental Determinants of Recreation Behavior", Journal of Leisure Research, vol. 4, pp. 129-138.

social context, also it is important to reject the intuitive preconception that the physical setting is necessarily the dominant producer of sensation during outdoor experience. Beside, should be viewed the participant not as a passive victim of whatever the outdoor environment setting has to offer, but as an active creator of optimal flows of stimulation, primarily through active manipulation of the social context.

Accordingly, the analysis of both environments should be mentioned in order to have a sort of overall approach for the environment as a whole. Hence, the third dimension of the recreation paradigm is concerned with both environments, the physical and social. The physical will be deduced through the geographical aspects and climate, while participants as individuals and groups will cover the social. Moreover, the interaction between both the social and physical will be deduced. Finally a focus on environmental quality in outdoor open spaces for recreation will be demonstrated. Consequently, chapter five will shed light on the environmental approach through the following four points:

5.1 The Social Environment and Outdoor Recreation.

5.2 The Physical Environment and Outdoor Recreation.

5.3 The Interaction Between the Social and Physical Environment.

5.4 Environmental Settings' Quality.

5.1 The Social Environment and Outdoor Recreation:

Recreation serves both individual and society. Definitions of a community and the society have acknowledged the dominant elements identified by Sulton and Munson, but have reinstated a functional element.[1] This involves the establishment of roles and relationships for survival and sustenance. It is an adaptation of the more narrowly focused ecological concept of community. The modern ecological approach recognises that community involves a collection of people organised in a social system to adapt and modify their environment for well-being and mutual benefits. It suggests a search for community that brings the function-ecological concept in relation with the more social and interactive concept of community.[2] Accordingly, the community is defined as various attributes, opportunities and services for the fulfilment of subsistence needs and the establishment of a service of community. This definition provides the basis for the discussion of the role of recreation services in relation to societies.

In dealing with individuals within a society, the term socialisation should be first defined. The process of socialisation is very important because it represents a microcosm of the

[1] Lyons, L. (1987), *The Community in Urban Society*, Chicago: Dorsey Press, p.276.

[2] Wilkinson, K. P. (1986), "In search of the Community in the Changing Countryside", Rural Society, vol. 51 no. 1 p.p. 1-17.

relationship between man and society. It involves the upbringing of children into adulthood and the guidance through training and experience of adults from one stage of their lives to another. The concept of socialisation is not usually limited to the periods of childhood and adolescence. Socialisation takes place over the course of man's entire live and is affected by major social institutions including family, school and the mass media. Typically, socialisation refers to childhood learning experiences and the process of becoming a social being. It deals only with attitudinal and behavioural changes, resulting from social learning and interaction with others. It involves learning norms of behaviour and values in the group, community and society to which an individual belongs.

The above discussion suggests that socialisation is a continuous, life-long process. Although despite their common characteristics, the processes of childhood and adulthood socialisation differ from one another in one important sense. Children become more socialised by accepting norms of behaviour. In the first stage they watch and imitate the acting of others. Later, they want to identify themselves with others, repeating the behaviour of others, because they want to be like them. On the other hand, in adulthood, the process of socialisation often starts with individually adopted values which are the source of certain behaviours.[1] The processes refer to the influence of socialisation agents like parents, peers, teachers, who in turn are affected by cultural and social aspects of the community.

The emphasis is placed on the process through which a child acquires basic knowledge about recreation, forms fundamental attitudes and values associated with them, learns various recreation skills and motives. As noted earlier much of this learning in childhood occurs through imitation, modelling and identification with the behaviour of others. It then follows that the socialisation agents, parents, peers, etc. play an important role in transmitting behavioural patterns and basic values relating to recreation, that is, judgements as to which recreation activities are accepted and which are not.

Adults convey to children, knowingly or unknowingly, a notion of desirability of certain recreation forms. Children often play and recreate without adopting the basic values attached to their activities by the parents. As an example, children may play games which require sharing and co-operation, without understanding why such games are desirable. It is only in the later stages of childhood socialisation that the young begin "internalising" the values underlying their recreation participation. In sum, one way of defining recreation socialisation is to view it as a process by which basic recreation knowledge, attitudes, values, skills and motives are learned and internalised with the net result of

[1] Kelvin, P. (1970), *The Bases of Social Behavior*, UK.: Holt, Rinehart and Winstom.

socially relevant and psychologically rewarding recreation behaviour.[1] Recreation socialisation like any aspects of socialisation is a life-time process. Socialisation is not only a learned generalised role expectations, but also how we can use communicative symbol systems to comprehend the particular expectations of a situated role and to present how we intend to take the role. Social interaction, then, is a negotiated process employing a variety of symbols and signs rather than a mechanical occupation of redefined positions.

Since the earliest records of civilisation, humanity's existence and development have been influenced by and responded to the collective functioning of individuals. People have banded together for sustenance and safety; the patterns of relationships that have evolved through the centuries to ensure human existence have been the essence of community.[2] People in the outdoors do not act in void of a social context. They act in response to the regularity principles and adjustment mechanisms of a larger society with a specific culture codes, and they respond to the will of the group with whom the experience is shared. Indeed, they even actively pursue social stimulation that they can draw upon to affirm self-identity, confirm personal values and world views, and establish bonds of friendship. The consideration of recreation and social behaviour together can shed important light on both areas. Social recreation includes activities pursued mainly to be with family or friends, activities depending on group interaction, or activities designed to meet new people. The outdoor recreation experience is clearly a group experience. Hence, the social environment will be studied in relation to the outdoor recreation as follows:

5.1.1 Groups and Outdoor Recreation.

5.1.2 Interactions within Groups.

5.1.3 Interaction between Groups.

5.1.1 Groups and Outdoor Recreation:

> "To God, the best friends are those who are good to each other and the best neighbours are those who are good to each other" Sayings of the Prophet (PBUH), al-Termedhi via Abdullah Ibn Omar.[3]

Groups are defined as two or more people who interact in patterned ways and are identified as members by themselves, they represent a basic unit of sociological analysis. Individuals perform most of their roles in them, and they are important source of both social control and conflict. In addition, the social characteristics of groups can affect not

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[1] Iso-Ahola, Seppo E. (1980), *The social Psychology of Leisure and Recreation*, Dubuque, Iowa, Wm. C. Brown Company.

[2] Hassinger, E. W. and Pinkerton, J. R. (1986), *The Human Community*, New York: Macmillan p. 474.

[3] Al-Mubarak, Muhammad (1974), situated in Hakim, Besim Hakim, (1986), *Arabic-Islamic Cities, Building and Planning* Principles.

only individuals, but entire societies.[1] A subgroup is simply a group within a larger group. In addition, the term "groupness" is a matter of degree, depending on how much members interact with one another, how strong their sense of "we-ness", and how strongly group norms exist affect its member's behaviour.

The social environment is a combination of social groups. A social group could be a family, neighbours or a group of friends. The most appropriate classification for the social group in the outdoor environment is through its three classifications as; The family, friends, and the family/friendship. First, the family group consists of respondents who are members of nuclear family groups (husband, wife and children), extended family groups (grandparents, parents, children and other relations) or single parent family groups (divorced or widowed but still with children). The friends group consists of non- family members who are participating on site with members of the same or opposite sex. Finally, the family/friendship group categorisation consists of any possible combination of family and friendship. The importance of recreation rests on its contribution to such groupings and the part they play in the broader society.

With reference to the Egyptian context, it could be said that the family group is the more important one, where the extended family is the dominant including the three generations. The friendship, specially for the lower and middle class is mostly formed from the neighbours. The importance of both was more stressed by the Prophet (PBUH) through his saying: "Of happiness: a good wife, a spacious home, a good neighbour and a good mount"; Ibn Habban.[2] The wife represents the family as the first base of it, home represents the place where families are formed and gathered and finally the neighbour personifies the friend group and follows the family. In other sayings he (PBUH) stressed on the importance of the relationship between neighbours till the seven neighbour far from home. As for the family/friendship group, it is formed by two or more nuclear family groups, composed of parents and children. What is meant by children in the Cairenes' context is not only small kids but also teens and grown ups who are not married since their separation from the extended family depends on their marital status.

These social groups have interacting styles when participating outdoor recreational activities. The varieties of ways in which different groups perform much the same social functions suggest the shaping power of culture on outdoor recreation. The ethnicity of outdoor recreation does not deny environmental influence on participation styles. Rather, the styles learned are specific to the group in which we find our social identity. The ways

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[1] Johnson, Aiian G. (1989), *Human Arrangements: an introduction to sociology*, Harcourt Brale Jouanovich, 2nd edition.

[2] Karim, Fazlul (1938-1939), situated in Hakim, Besim Hakim, (1986), *Arabic-Islamic Cities, Building and Planning* Principles.

we play, converse, eat and drink and otherwise interact are those who are 'our people or group'. Further, those styles serve to preserve and strengthen the identity of the group and give members a sense of being a part of a collectively that is real. Despite the differences of interaction styles between groups of a society; these styles in recreation settings also tend, in some ways, to reflect the general culture. To sociologists, the environment for a person in the outdoors is likely to be construed as the group one is associated with, the character of other social stimulation present the community in which one originates, the institutions to which one belongs (economic, work, education, religious, and family) and the culture one is reared within. Accordingly, the types and ways of interaction between these social groups should be studied.

5.1.2 Interactions Within Groups:

It is important to focus attention on the social group as a potentially important determinant of outdoor recreation behaviour. Society is seen as more of a process in continual flux than a system. Any attempt to understand social interaction must incorporate that change or procession in nature. Further, the regulations of the social groups built up out of the learned interpretations of the social groups and are, therefore, subject to change as those definitions change. Individuals of a social group are continually defining and redefining not only those with whom they interact, but also themselves. They have social identities based not only on their positions in institutions but also personal identities as they define themselves. In social interactions the presentation of personal identities comes together with the social identities perceived by others in a process of identity-environment and revision. Participants' personal identities are always subject to revision in the interaction process where all individuals define the situation with each others and act in accordance with those definitions. All individuals are members of one or more of a series of groups, ranging from the family to the home species, where the cultural and sub-cultural groups to which they belong strongly shape their activities.

In addition to the role of social interaction as a recreation activity, it is also important as a motivation for participation in other recreation activities and as a source or need fulfilment derived from them. Many activities such as team sports, games and crafts may include an important social component.

In Egypt, the social environment is supposed to rank over all other factors. This is cleared in an Arab saying which reflects Egyptian's perception of open spaces: "Paradise without people should not be entered". Hence, through their point of view, if the physical environment provides paradise but lacking the social factor, it will be deserted, [figure (5.1)]. Not only this saying, other sayings and souras from the Qur'an supports the same concept.

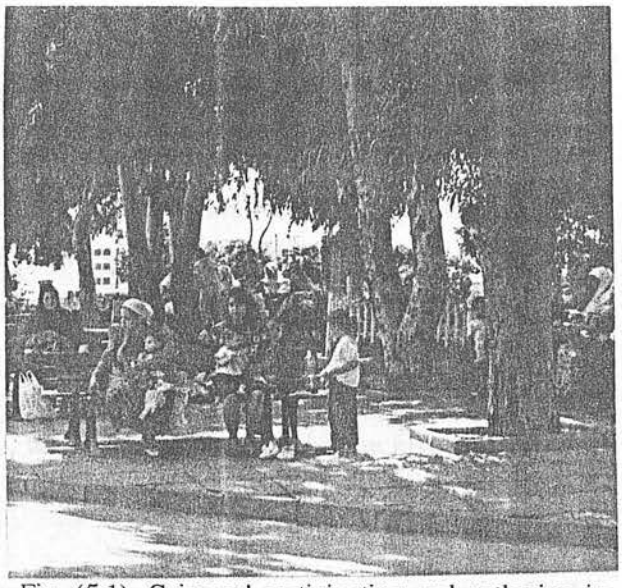

Fig. (5.1), Cairenes' participation and gathering in open spaces for recreation.

Similarly, Hall supports the idea, he stated that, Arabs avoid any partitions because they do not like to be alone.[1] Besides, he determined that there were different spaces for different interaction situations. He classified these into four categories, the intimate distance, at which intense feelings are to be expressed as tenderness and comfort. The personal distance, is the distance for conversation between close friends and families. The social distance for ordinary conversation among friends, neighbours, etc. Finally the public distance, which is the distance used in more formal situations. However, it is posited that each could be described as a territory or spatial zone, the dimensions of which varied between and within societies according to cultural, social-class, life-cycle stages and personal factors.

From the research point of view it is not an easy task to illustrate a number of dimensions for these four categories within the Egyptian context. Although there are some aspects that should be taken into account as privacy. Privacy as a context is strong for Cairenes specially within their private life as at home and the privacy of their families though in open spaces Cairenes act differently, they are out to enjoy themselves through the interaction of other friends and relatives. Accordingly enclosed areas in open spaces are suspected to be preferred by Cairenes as they represent a source of moral distribution to the community. El-Mountasa garden in Alexandria is a good example. Such garden includes many enclosed natural settings.[2] As a result of such aspect, many police cars and security agents revolve the setting areas in order to prohibit any negative actions which is against the Egyptians' cultural beliefs.

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[1] Hall, Edward T., (1966), *The Hidden Dimension*, Doubleday, Garden City, New York.

[2] For more details of el-montasa garden see chapter 3

5.1.3 Interaction Between Groups:

"He whose neighbour is not safe from his harm and dishonesty, will not enter Paradise" Sayings of the Prophet (PBUH): Muslim via Anas.[1]

The concept of interaction between social groups deals with affairs of the heart, of intense attachment and affect and loss, sorrow and grief, feelings recreationist commonly associate with other humans, particularly loved ones and close relatives. The interaction within the social environment refers to the groups of participants one wants to do an activity with. It has two main forms, the first is what Hester indicates as a 'with relation', including both a one and two ways relations, while the second is what he also indicates as a 'without relation'. [2]

The "with" component of this concept includes desirable "interaction participation" who may be activity peers or activity teachers and who may be described by life-cycle stages, class, social class, or regional characteristics. If there is an appropriate match between these characteristics, the participants could be expected to engage in a certain activity, thereby using a space in a two way relation. The "with" component also includes a positive 'peoplescape' or a one way relation, that is, people whose presence is a positive factor even though one does not interact with them. Peoplescape attraction is the group's reason for using the space, in other words to watch others. This could be a variety of people, other recreation behaviour, etc.

The "without" component includes getting away from people, seeking privacy and avoiding overcrowding which depends on the users' mood and needs. It also includes a negative peoplescape aspects which depends on out of control factors, that is, people whose presence is a negative factor or a threat to one's safety or comfort. This component indicates that people may be disinclined to use a space if undesirable people are there. This negative peoplescape is a result of many reasons e.g. crowd, undesirable recreational behaviour of other groups, safety and sometimes gap between life-cycle stages. It is not only the number and location of other people in the park that contribute to the negative peoplescape, but also the types of people participating and their behaviour. People may relate negatively towards others who have values or status that conflict with their own. In Cairo, the coherence between both the lower and middle -lower class makes the "with" component stronger than the "without". In addition because of their dislike of enclosed private settings in open space, the "with" component is expected to be more preferred.

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[1] op cit., Karim, Fazlul (1938-1939), in Hakim, Besim p. 249.

[2] Hester, Randolph (1984), *Planning Neighborhood Spaces for People*, Van Nostrand Reinhold, 2nd edition, p. 58.

In general, the social environment not only depends on its agents but it also depends on the physical environment. The components and elements of the physical environment influence the existence of the social.

5.2 The Physical Environment and Outdoor Recreation:

Although, the philosophy of recreation should be grounded in culturally defined values and behaviours rather than in the physical aspects, the latter should not be neglected. The fixed environment determines the types and amount of recreation opportunities through its physical and natural resources. Environmental considerations determine the acquisition and preservation of open spaces, regardless of people's expressed needs or the fiscal resources to pay for this space. Open spaces and gardens are like an open society, must be free and yet controlled. Freedom of action in public spaces is defined and redefined in each shift of power and custom. Their physical design should allow for communication, peaceful protest and demonstration in a way that should not disrupt the ongoing function of the city or society. There must be locations where a demonstration will be visible and have symbolic weight, where access is easy and panic or entrapment unlikely.

Egypt is popularly described as the 'Cradle of Civilisation" because it is the part of the natural world which has had the longest continuous interference from man. It is considered as a country of sharp contrasts and extremes, strong sunlight and deep shadows, steep '*gabal*' hills and flat sand plains, burning hot days and cool nights, hard deserts and very fertile soil. It is hard to consider Egypt as one part of same objective environment. The existence of water represented by the Nile, Red sea and Mediterranean played a great role in dividing Egypt geographically to three sectors. Such sectors largely depend on the diversity within societies so that habitants of each sector promote different recreation experience.

The climate has also had a major influence on the ways of life of the people and their cultural, social and religious traditions. This has been reflected in the use of external space and the design of the various elements that make up the man-made landscape. Nevertheless, comparative analysis of Islamic architecture in countries which have different climatic conditions as Egypt, suggests that climate always has been a significant force influencing design and planning.[1]

[1] Shafei, Farid (1969) *Al imara al Arabia fi masr al Islamia , (Arabic Architecture in Islamic Egypt),* Cairo, vol. I, pp. 286- 288.

The relation between both factors forming Cairo's physical environment[1] and outdoor recreation will be discussed as follows:

5.2.1 Natural Environment and Outdoor Recreation.

5.2.2 Human-Made Environment and Outdoor Recreation.

5.2.1 Natural Environment and Outdoor Recreation:

The natural environment provides people with abundant resources for recreation. Nature has granted the grass and the fields, the trees and the woods, rivers, lakes, rain and sunshine. Man has the challenge of the mountains, the seas and the sky. Man has beauty to behold, solitude in the country and peace away from crowds. Nature has provided humans with the means to survive, to seek, to explore, to find, to grow and to multiply. It has certainly provided man, not only with the desire to play and to find recreations, but also with the human capacity and resourcefulness to do so.

In general, open spaces for recreation have been valued for centuries for giving people living away from the country side contact with nature. People need to use open spaces for recreation to ease the burden of urban life by city dwellers and to give added opportunities for social interactions. Moreover, the effect of nature on human needs could not be neglected. There is evidence of the psychological importance of 'green'. This includes medical observations which show that people in hospital looking towards views and plants can make a speedier recovery than those looking at wall.[2] Accordingly, because of the physical and psychological effect of the natural environment it should have more attention. Through this chapter the natural environment with relation to Egypt will be studied through the following aspects:

5.2.1.1 Topography.

5.2.1.2 Climate.

5.2.1.1 Topography with relation to Egypt:

Egypt, a land of broad infirmities and cohesiveness, is a geographical and historical entity. The topography of Egypt is extremely simple but significant. In a general view, Egypt consists of two intersecting straight lines, the Nile Valley and the Mediterranean coast. A line of water and verdure that widens near the Mediterranean Sea runs between two deserts. This made the country throughout its history an easy one to hold and rule.

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[1] See chapter (1), for the physical environment factors.

[2] Verderber, S. (1986), Ulrich, R. S. (1984) and Moore, E. O. (1981), cited in Kaplan, R. and Kaplan, S., (1989), *The Experience of Nature, A Psychological Perspective*, Cambridge University Press, page 1.

Egypt occupies the north-eastern corner of the African continent. Its area represents only 3% of the total area of Africa. It is bounded in the north by the Mediterranean Sea, in the south by the Republic of the Sudan, in the west by Libya, and in the east by the region of Palestine, the Gulf of Aqaba and the Red Sea. Its eastern Frontiers stretch from Taba Harbour on the Gulf of Aqaba, north westerly to Rafah on the Mediterranean. The western Frontiers extend from the Salum Gulf of the Mediterranean southwards to the Egyptian-Sudanese boundaries leaving the oasis of Gaghboub in the Libyan Territory.

The total area of Egypt is a little more than one million square kilometres, with only 345,000 square kilometre under cultivation. Most of Egypt falls within Africa's dry dessert region, except a narrow strip of land far north which experiences a Mediterranean type of climate. The empty, barren deserts occupy more than 96% of the country.[1] The only inhabited part of Egypt, since the dawn of history, is a longitudinal oasis corresponding to the lower Nile Valley. The Nile divides Egypt to two main parts, beside the Nile Valley, west is the Western Desert, while to the east is the Eastern desert, [figure (5.2)].

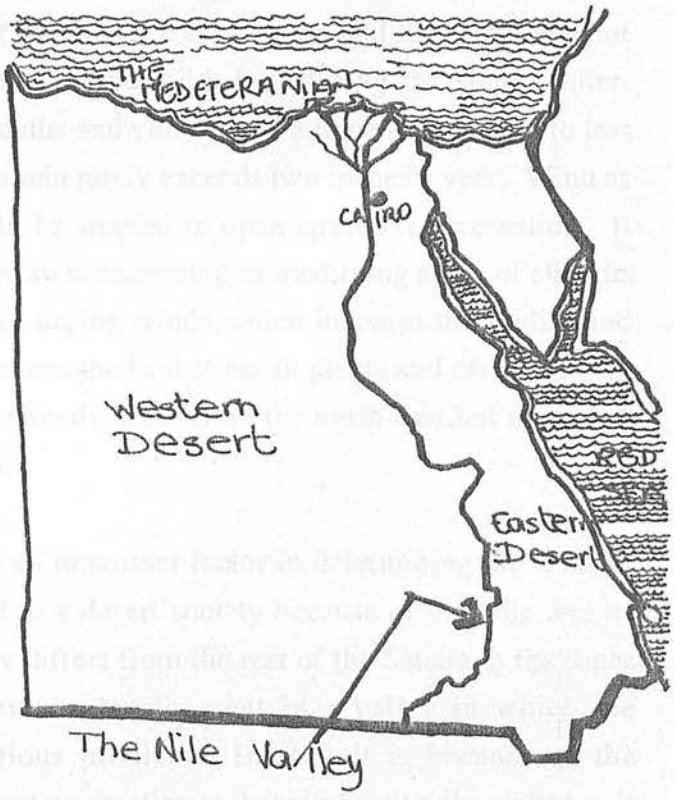

Fig. (5.2), The division of Egypt into three parts.

The second component of Egypt's physical environment is the climate. To understand the influence of climate on open spaces for recreation in Egypt it is important to examine the basic features of that climate. It is equally important to understand the nature of human responses dictated by the need to meet the challenge of climate and ensure survival. By all climatic definitions the country is one of the most arid in the world. It is located in the north-eastern corner of the North African arid zone; with the exception of the narrow coastal strip along the Mediterranean, the country is entirely within that part of the zone classified by Meig's maps as extremely arid.[2]

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[1] Abu Al - Izz, Mohammed S. (1971), *Landforms of Egypt,* The American University, Cairo.

[2] Mcginnies, William G.; Goldman, Bram J. and Patricia, Paylore, eds. (1968), *Desserts of the World,* Tucson: University of Arizona Publications, pp. XXI- XXVIII.

5.2.1.2 The Climate:

Climate is a matter beyond man's control. The local climate can be modified through, the planting of greens, the supply of water and the modifying of soil, but there is nothing to be done about the macro climate of the area but accept it. As mentioned previously, most of Egypt's land is within the dry desert some except of the north band along the Mediterranean coast. Generally, arid regions have certain climatic characteristics, such as low humidity, and the fact that despite high temperature, bare rainfall results in barren conditions. The Nile is an exception to this rule, because rainy source areas supply it with enough water to reach the sea. In general the climate is hot and dry during the summer with cold nights and mild days during the short winter. Rainfall occurs only during the winter months and varies from a trace in the south to less than seven inches in Alexandria. In Cairo rain rarely exceeds two inches a year. Wind as another important climatic factor should be studied in open spaces for recreation. It represents both an agent of weathering and an exacerbating or modifying agent of climate. Winds off the desert, *Khamaseen*, are hot drying winds which increase the aridity and create sand or dust storms. They can increase the heat stress in plants and cause wilting. In Cairo and northern Egypt, winds consistently blow from the north-east but may shift occasionally to a north-westerly direction.

If the availability of water is considered an important factor in determining the level of aridity, Egypt could hardly be described as a desert society because of the Nile and its vast supplies of fresh water. The country differs from the rest of the Sahara in the sense that its civilisation and population centres development in a valley in which the availability of water was rarely a serious problem. In fact, it is because of the combination of adequate water supplies and warm climate that civilisation flourished as it did. In addition, the relatively dry and warm climate has preserved monuments and records of these civilisations. In other words, if Egypt owes its existence and civilisation to the Nile, we owe the knowledge of the mysteries of these civilisation to the country's climate.[1]

In summary climate is an important factor because it directly affects people, specially in the outdoors, by the temperature, precipitation hours of sunshine and wind. A pleasant place for outdoor recreation greatly depends on the protection from unpleasant weather. Types of undesirable weather conditions vary considerably from area to area and country to country. Seasonal and climatic orientations differentiate among activities in ways that influence the distribution of demand throughout the year and among the regions.

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[1] Toulan, Nohad A. (1980), "Climatic considerations in the design of urban housing of Egypt", in Gedoen Golany (eds.), Housing in Arid Lands: Design and Planning, The Architecture Press, London, Halsted Press Division, John Wiley and sons, New York.

For example, in a place like Edinburgh even in summer participants look for the sun in the outdoor environment, [figure (5.3)]. On the other hand, in a dry weather like in Cairo, sunshine is longer and precipitation is lower, so theoretically, they are usually suitable for more outdoor recreation activities. However this is feasible only in the evenings and early mornings, when the cooling effect of the night and ready escape of heat affect the micro-climate.

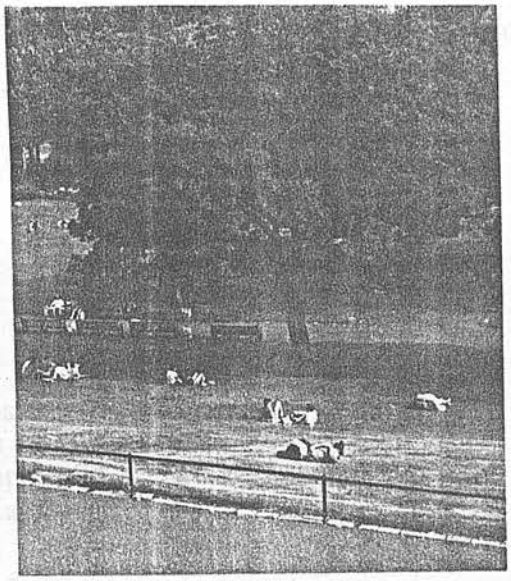

Fig. (5.3) The effect of climate on participants in Edinburgh, (Prince street. garden).

Protection from sun and heat plays an important part in Cairo, [figure (5.4)]. In his examination of the social life of small urban spaces in New York, William H. Whyte, also emphasised the importance of protection against negative climatic conditions in order to assure acceptable conditions for the outdoor activities.[1] Such protection could be achieved by using landscape elements.

Fig. (5.4) The effect of climate on Cairenes' participation in open spaces.

5.2.2 The Human- Made Environment with reference to Cairo:

Despite what the natural environment provides humans, yet the demand for human made additional resources for recreation for people is greater now than it has ever been. The human-made environment may influence and direct recreational behaviour. Through this environment the landscape planner role starts to exist. Human-made elements are seen as tools, their importance lay in the realisation that it could affect the recreational process' goal. They help participants to achieve the reason of participation and fulfil their recreation needs in satisfaction. Generally the concept of human-made environment for recreation in cities could be classified to four scales. First, the zone of open spaces for recreation which will be studied with relation to Cairo. Second the areas within these spaces. Thirdly, the setting scale, which is devoted to the types of settings within an open space. Finally the landscape elements represented by the man-made which are illustrated

[1] Whyte, William H. (1980), *The Social Life of Small Urban Spaces*, Washington DC.: conservation foundation.

to enhance and facilitate the participants needs of recreation. Hence the Cairenes-made environment will be studied through the following hierarchical scales:

5.2.2.1 Open spaces in Cairo (zones).

5.2.2.2 Areas within open spaces.

5.2.2.3 Environmental settings in open spaces.

5.2.2.4 Landscape elements in the settings.

5.2.2.1 Open spaces in Cairo:

> "Cairo, like any other major metropolis, is much more than a congeries of physical subdivisions, salient land-marks and streets, and distributed land uses. It is, in the final analysis, more aptly described, in Louis Wirth's felicitous phrase, as a true 'mosaic of social worlds.' "[1]

Landscapers' introduction of green space facilities are contributing to an important extent to the quality of the urban environment. In Cairo, these open spaces are the lungs through which all Cairenes' breath fresh air and fulfil their recreation needs.

It appears that a framework by Janet L. Abu-Lughod[2], might be a useful heuristic to apply to the study of Cairo. In her book, she divides Cairo into "thirteen cities within the city" this subdivision is according to style of life differences, in the physical appearance of the quarters; in the available shopping facilities, kinds of houses, and even in some places the way of dressing that trims the inhabitants and perhaps symbolises their belief system.

All these differences indicate the variations in life patterns contained in these thirteen districts. Generally, Cairo is divided into four quarters that include the thirteen district. This is shown in figure (5.5) where the boundaries of these major districts are shown.

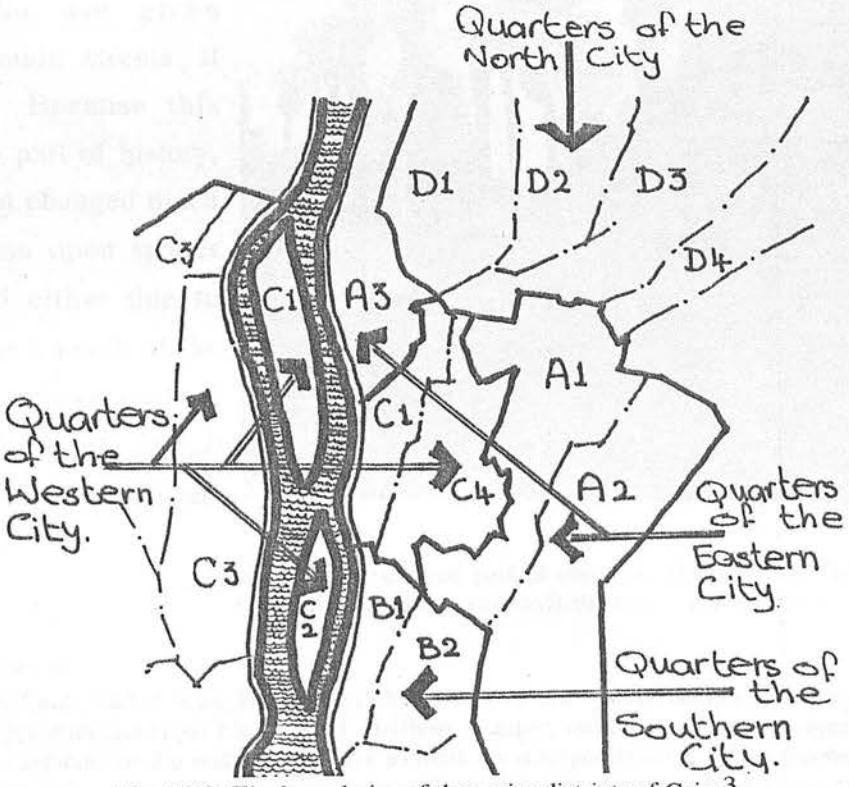

Fig. (5.5), The boundaries of the major districts of Cairo[3].

[1] Abu-Lughod, Janet L. (1971), *Cairo 1001 Years of the City Victorious*, Princton University Press, p. 182.
[2] ibid. Abu-Lughod, Janet L. (1971), p.188.
[3] bid. Abu-Lughod, Janet L. (1971).

A) THE QUARTERS OF THE EASTERN CITY:

A-1) COMMUNITY X- Medieval Cairo

This community almost represents all that remained of Cairo's extensive medieval heritage. The area represents a rich part of Islamic treasured structures and Mosques[1]. However, the residents of this community have more in common than their physical inheritance, even though they can hardly be confused with the romantic figures who populated the imaginary city of a thousand and one nights. Some areas in which cars are useless, Children are ragged and exuberant, donkeys are present beside the open stalls with their woven straw containers overflowing with olives, dates, watermelons, or other bulk foods. While in others, where traffic is thicker the existence of women in black-robes, men in their white *jallabiyah* and children in stripped cotton night-shirts and pyjamas occurs. It is obvious that people are carrying something from somewhere or someone to somewhere or someone else. Community X is considered as a residential slum that exist underneath the history. It is undeniably urban, albeit in a non-Occidental fashion its residence are more lower-classed than middle. Recreation behaviour is practised in streets' fronts and green conjunction between main streets. Streets within the community is part of life.

Most recreation activities are participated there and they are mainly social between friends and neighbours. Beside streets fronts, residents also use green conjunction between main streets, if existed, to recreate. Because this community represents a part of history, the urban pattern has not changed much than before unless some open spaces which were illustrated either due to collapsed buildings or as a result of the change of use, e.g. the cultural park of children, (*Hadeekat El-Hod El-Marsoud*) in El-Sayyida Zayinab district, [figure (5.6)].[2]

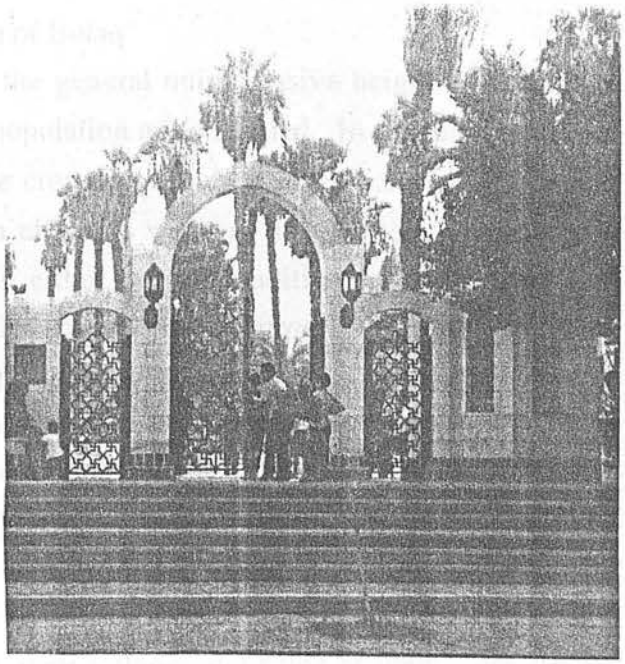

Fig. (5.6) the cultural park of children, (Hadeekat El-Hod El-Marsoud) El-Sayyida Zayinab district, community X.

[1] Islamic structures as Bab al-futuh, Bab al-Nasr, Bab Zuwaylah, Mosque of Ibn Tulun, Mosque of Aqmar the twin mosques of Sultan Qalawun and Nasir Mohammed, al-Ghuri Mosque, and Sultan Hasan Mosque. Only three gates and a few fragments of the wall still survive to mark its enlarged borders. This quarter extends northward beyond the wall and the massive twin gates of Bab al-Futuh and Bab al-Nasr into al-Husayniah. At the extreme easternmost of this community, the squalid residential and open-market zone that lies at the foot of Salah al-Din's Citadel, still rested on a spur of the Muquattam.

[2] This garden was recently constructed instead of a slum area which was known for drug dealers.

A-2) COMMUNITY IX-The Funeral Quarters of the Eastern Fringe

This community is known as the cemetery cities. It stretches in clustered concentrations along the eastern edge of the metropolis.[1] A remarkable description is written to capture the ultimate sense of unreality engendered by a first visit, which is:

> It is a lion-coloured, unlofty city, with streets like streets elsewhere, with the houses numbered, as though the postman might bring letters by the first delivery. But if he bangs the door and, no one opening, pushes in, he enters the parody of an ordinary house-two adjoining rooms, dust-carpeted, in each an oblong shape of stone or plaster. Under one floor lie the male members of the family; segregated in death in the adjoining cellar are the women .[2]

The community represents a residence for people who had and still have no other alternative. Early marriage in families of this community and high fecundity that betrayed their cultural affinity with rural Egypt, from which a great many had recently come. Residents of this area share the same class as the previous. Residents are very sociable and mostly noisy. They recreate in streets, and children play in any open spaces. Open spaces in this community are not landscaped.

A-3) COMMUNITY I-The Balady Slum of Bulaq

Bulaq has a high density despite the general unimpressive height of buildings. Within the district, one tenth of Cairo's population are crammed. In the main streets of this community, there is a flow of people crowded, children in school clothes; women some of which in traditional black gown although wearing more Western-style house dresses under their outer robes; and men either in their traditional grab of long, full *jallabiyah* or in the white shirt and wrinkled trousers of the *faranji* (the foreigner). They are all gathering to gossip, talk, drinking a glass of tea reading a newspaper or a slow game of backgammon. They gather to quarrel with loud voices but never with physical force, or to watch the outcome of another quarrel. One senses that all these gatherings are fostered not so much by a gregarious nature as by the sheer pressures of people on space, making crowds even where crowds are not sought. In the tiny streets the old men sit, in winter circling with the sun; and in summer in a slow progression of seats. Generally, many of Bulaq residents have come from rural villages and some of them have already adapted to city life styles others are still adapting. Bulaq is considered a slum because it is an old area, but it retains little of historic interest or ancient charm.

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[1] Why people live there and whom they are is the question of this community. This started by the 1947 when population had extended to over 50,000. Accordingly, due to both the housing shortage and overcrowding induced during the war years, some migrants to the city were forced to live in this peripheral zone.

[2] Stewart, Desmond(1965), situated in ibid Abu-Lughod, page 193.

B) THE QUARTERS OF THE SOUTHERN CITY:

B-1) COMMUNITY XII- The Old Misr (Misr al-Qadimah)

This is one of the old communities in Cairo, which is also indicated by its name.[1] The type of this zone is closer to the rural than urban mode, despite the generally high density of development. This could be a result to the fact that the district blends into the true rural border to the south where agriculturists prevail. The minority is for the rural and quasi rural population, while the majority of residents are old-time urbanites who occupy dwellings that of urban design, albeit of peripheral quality. This community is in a way better than the previous, it lies by the river Nile where a great strip of open space exists.[2]

B-2) COMMUNITY XIII- The Southern rural Fringe

Community XIII is the zone between Misr al-Qadimah and the industrial satellite of Halwan, which is represented by a narrow strip by the east edge of the river Nile. Most parts of this community are rural, e.g. except for "Al Ma'adi". The latter is now an upper and upper-middle class Egyptians community of private homes and a complex of high rise buildings by the river Nile.

C) THE QUARTER OF THE WESTERN CITY:

Virtually encircled on three sides by the ring of interior slums formed by the oldest quarters of al-Qahirah, Bulaq, and Misr al-Qadimah, the city which grew up in the modern era as a counter thrust to medievalist could expand in only one direction- to the west, toward, then into, then beyond the Nile. Each successive left a vertical situation in the social mosaic of Cairo.[3] The western city consists of four communities. Community XI is the one closest to the medieval edge, both physically and socially. Community VII, the gold cost, follows as the heart and facade of modern Cairo. Beyond community VII lies the silver coast of community VIII. Community VI is farther to the west.

C-1) COMMUNITY VII- The Gold Coast

In this community, the wealthiest and most Westernised residents live. They live in a space less than 5.5 square kilometres of the most valuable land right in or adjacent to the centre of the city. New hotels and shiny apartment building exist there by the river Nile, and by the middle set of tropical trees. Al Ahly Club and Al Jazirah Sporting Club the most important sources of recreation for the upper and upper middle class. Detached to El Jazirah Sporting Club is the youth centre, where teens and adults of any social class can participate recreation activities.

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[1] It includes the first mosque to be built on Africa after the Arab invasion, that is Mosque of `Amr'. Within the community, an old tiny belt at the edge of the *khraba*, covery Fostat exists. It includes the walled enclave of churches and Copts earlier Jews that make up the present complex at Babylon.

[2] For more details of this area see chapter 2

[3] op cit. Abu-Lughod (1971), p202.

This community is the best community in Cairo from the recreational point of view. It contains a lot of open spaces situated by the Nile, as Al Andalus, Al Asmak and Al Orman, [figure (5.7)]. Most open spaces within community VII were planned nearly at Isma'il's era, by western landscapers. At present some of their area was reduced due to the urban growth. By 1960, the district contained a population of over 82,000 which is numerically less impressive than its influence. A lot of movies houses specialised in both foreign films but most of all; Arabic productions. The Opera House exists in the area.

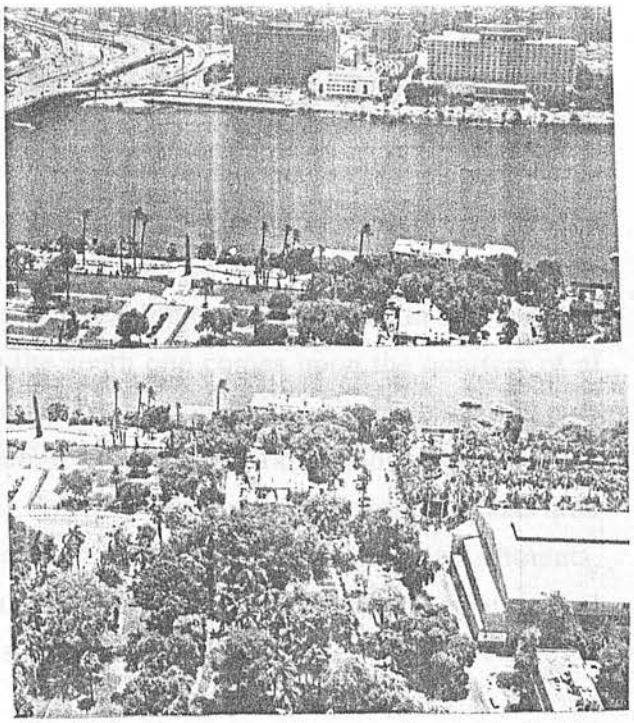

Fig. (5.7), Open spaces for recreation in the Golden Coast, community VII.

C-2) COMMUNITY VIII- A Parallel "Silver Coast"

The quarters of Duqqi, Jizah, Ajuzah and Rowdah represent this community, where a mediating class in Cairo has been growing. A large mass of middle and lower-middle class Egyptians are attracted to the zone by its combination of location convenience and moderate rent. The south-western counterpart has gradually been encroaching upon the urban region's fertile green hinterland in its fight for lebensraum. In this community, there are a few recreational and institutional uses, generally occupying old palaces, including faculties of Law and Engineering of Cairo University, the Agricultural College, the shooting club, the zoo...etc. The shooting club is one of the private clubs where high and middle class Cairenes participate recreation, while the zoo represents a favourite recreation open space for most classes, specially the lower and middle.

C-3) COMMUNITY VI- Imbabah and the Western Rural Fringe:

Imbabah: The northern section of this part of Cairo is considered as a poor area which is linked socially and functionally with Bulaq across the river than with the traditional districts that increasingly encircle it. Street fronts represent the open space where residents of this community participate, although they use the free fees Gold Coast open spaces for recreation, as in the Orman and Andalus Gardens. Currently imposed on this fringe are such urban schemes as Madinat Al-Mohandeseen. Such district shares nothing with its neighbour. On contrary, at present, it represents part of high-middle and high class residences.

C-4) COMMUNITY XI- The Transitional Zone of Osmosis

In this zone are the Azbakiyah Gardens which were landscaped in 1869.[1] No one to look after the garden, beside the misuse of it, the grass is no longer lovingly manicured. Some men sleep in the gardens during the hottest noon hours upon its once-elegant slope, people having picnics on grass leaving food left-over all over the ground. This garden was once fenced, an exclusive domain, a charge should be paid for entrance. Now the admission fees has been removed, through its centre a high way has been cut and the park has corrupted. Beyond and even further to the south one comes upon the quarters of al Nasiriyah, Darb al-Jamamiz, and Hilmiyah areas whose development was delayed in part by the natural features of this low-laying area, formerly spotted by ponds. Farther south is the business zone of Al Ataba Al Khadra. South of this zone is the working class area situated around the "Abdin Palace-port offices" part inferior commercial establishments, part lower-middle-class residences. The quarters of Al Nasriyah, Darb al Jamamiz and Hilmyah are beyond and even farther to the south.

D) THE SUB CITIES OF THE NEW NORTH

According to Abu Lughod description, five sector cities northward, spreading apart like fingers on a hand from their common origin at Azbakiyah, to form the star-shaped and transport-linked city of the north. The "bone" of each finger is a radial transportation leading out from the city's centre, the linear city of Sahil Rawd al-Faraj exists along the waterfront. The other four communities of northern Cairo will be described through the followings:

D-1) THE COMMUNITY II-Shubra, Lower Middle-Class Melange[2]

In a description of Shubra's life-style, Abu-Lughod cited that "One is assailed by continuous cacophony from rumbling tram-cars, listing, over crowded buses, donkey cars delivering vegetables from the rich agricultural lands to the north and too-loud radio programs from the multitude of open-to-the-street commercial establishments that usurp the first floor front of most buildings. Pedestrians neither so thickly compressed nor so slow moving as in Bulaq, fill the rest of the landscape. In marked contrast to the bustle of Shari' Shubra are the quieter but less urban side streets..... The occupants way of life reveals a similarly wide-range. Lower-middle-class Coptic clerks with a high regard for their respectability congregate in some sub-sections, in others recent arrivals from the

[1] See chapter 2 page() for more details about El Azbakyia garden. On the last visit of the researcher to Cairo, in August 1993, it was noted that this garden has been re-landscaped but was not opened to the public yet.

[2] Shubra exists radiantly northwards from the rear of Cairo's major railway station (*Mahatat Masr*), on the west almost defined by Aby-al faraj street and the barrier of a major railroad east to the Delta. It should be mentioned here that with relation to the socio-economic status, ethnic composition and housing types, Shubra contains a wider variation than are to be found in other neighbouring sub-communities.

rural Delta have imposed upon the unyielding urban environment the needs and necessities muttered by a village style of life."[1]

D-2) Community III - A Northern Agricultural Wedge:

This Wedge's area is an area nearly equal to all of Shubra, which adjoins it at west, located between two major railroads. The life-style of its residence is more rural than urban, despite the involvement of many of the area's men in the expanding urban economy. Families are large and marriage is held in an extremely early age. However, most of the urban social disorganisation as violence, and divorce are relatively absent.

D-3) The Community IV- A Strip of the Urban Working Class:[2]

Community IV consists of continuous settlements that clusters one by one along the major transportation axis radiating to the north-east, towards the distant canal cities with which Cairo is linked by both a desert highway and a railway road. The zone as a whole represents an arena of the theoretical norms or average for Cairo. Within this quarter the neighbourhood and extended family are the dominant groups of social relations. Whole conversation may be held on at high pitch by neighbours with adjoining or opposing balconies and one may often view through the open window or balcony's doors of the flat across the street the life of a neighbour. Children and grocers are called from windows and small balconies to signal them. A kind of casual, noisy spirit fills the air of this quarter a quality that for hundreds of years in various parts of the globe has attracted and repelled middle-class investigators and social workers. Community IV includes some green open spaces, but not landscaped or designed for the recreational purpose. These areas are either left-over or green rounds about where children play and families utilise specially in the hot evenings of the summer.

Despite all the socio-economic features of this area it does not represent a slum. Opposite, housings are solid and the people are too close to the middle of a pyramid of social status in Cairo to be classified as slum residents. Abu-Lughod also describes this area as "it is here more than else where in the city that one finds the crucible in which Cairo of tomorrow- maturing beyond the ethnic visions and life-style extremes of yesterday- is being forged. Here, clerks, mechanics, and machine operators may live side by side with and even in the same extended family house holds as petty properties and simple workmen who follow order ways of making a living and more time-honoured modes of involvement and association."[3]

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[1] op cit., Abu Lughod page, 211

[2] This quarter includes the following settlements; Al-Wayli, Al Dimirdash, Manshiyat-al-Sadr, Qubbah, Qubbah Gardens, Kubri-al Qubbah, Al-Zaytun, Helmyiat al-Zaytun and Ain Shams.

[3] iop cit. Abu-Lughod, page 215-216.

D-4) Community V- A Sector of the Old and New Middle Class: [1]

Community V represents a middle-class district of high status and prestige. In this zone the old middle class mixes freely with the rising middle class. Although there are high percentage of Christians and foreigners in this zone, it is different than the district of the Gold Coast. Upper-middle class Egyptians domain the tome of life-style in this area. The old domestic moralities are highly prised here kinship involvement still dominate recreation-time use and eating is an organising principle of life. This zone symbolises the new aspirations of contemporary Egypt.

In community V, there is a number of private clubs as Nasr City club, Al Zohour, Holylido, Heliopolis and the Sun sporting clubs, and others. Most Cairenes who stem form the upper and upper middle classes of this community participate recreation within these clubs. Moreover there are some designed public open spaces for recreation as The Merry land in Heliopolis and The National Garden (Al Hadeeka Al Dawlia) in Nasr City, [figure (5.8)]. Also between buildings there are green open spaces which are some times used but mostly neglected.

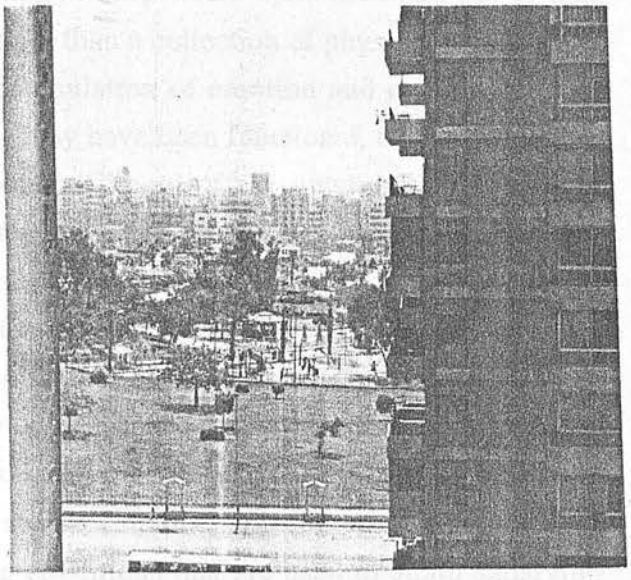

Fig. (5.8), A public open space for recreation in Nasr City, community V.

These were the thirteen communities within Cairo, the open spaces cited earlier in each community are not the only ones, rather they represent an example for others.

5.2.2.2 Areas within open spaces:

Open spaces for recreation could be further more divided into areas. The limits of such areas are in the form of routes which beside dividing the open spaces, connect between areas. Areas within open spaces are preferred to be connected in an attractive way to encourage participants to explore them and so use them. Also the areas should be clear to vision so that participants could have a general observation of the whole zone. The area within an open space embodies sub areas. The sub areas are referred to as settings.

[1]This sector is the largest between the communities of the north-east, it consists of Heliopolis linked by a narrow thread with the northern edge of Al-Azbakyia. This sector is located parallel to the community IV in direction and shape but exists to the south rather than north of the main route to the Canal.

5.2.2.3 Settings within open spaces:

The concept implied by the word 'setting' is perhaps best understood by thinking of the innate spaces that form open space for recreation. These spaces are the basic support system for human activities, the settings for all outdoor activity. It is possible to think of the whole of the outside as a sequence of spaces, some small and intimate, other vast and seemingly limitless. People react to and experience environmental settings as the place in which their recreational activities take place.

The outcomes desired from a particular setting are dependent upon the one's use of that setting. An environmental setting "means more than a collection of physical attributes, it means a history of past experiences, an accumulation of emotion and meaning." The original motivation to recreate in that setting may have been functional, but over time the place itself develops an importance beyond fulfilment of the outcomes that initially spurred participation. The place becomes "my recreation spot."

If the types of environmental settings most valued by the public can be identified, then recreation landscapers can best optimise the social benefits of natural resources through the designing of these settings, so as to provide environmental settings that are intended to contribute to satisfying recreation experiences for their respective publics. An important step is to identify and understand the systematic underlying forces that influence a recreationists preference for various setting conditions that are used to attain satisfying recreation experiences. Such an emotional relationship derives value from an image of the place. Such images tend to be stable in the mind and contemporary experiences are ganged against that historical to template. People can and do become very possessive about places they have used over time. The environmental settings represent the direct and suitable man made environment that tend to affect participants' mind and image.

Aside from the use of the physical aspects of and within settings from form and landscape elements which affect and form participants' image, other important forces may influence a person's image of the environment. Symbolic meaning can be tied by setting long before actual visitation occurs. Image is a major factor in the selection of recreation sites. Desirable image can draw people to a particular environment; even when the environment does not offer the array of outcomes or results best suited to their needs. Many visitors' image of the park have a symbolic, emotional component based in memories of past experiences in that setting that may well include feelings of possessiveness and attachment to certain features of past conditions.[1]

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[1] Knopf, R. C. (1987), "Human Behavior cognition and affect in the natural environment", in D. Stokols and I. Altman (eds.), Handbook of Environmental Psychology, vol. 1, New York: John Wiley, p.p. 783-825

Aside form the psychological effect on people's use of settings, physical consideration should be taken into account. Users' physical needs should be more considered. Presenting life-cycle stage as an example, the interaction between families with young children and the patterns of small children should be consider. It is noted that the young children environment is different than the elder's or teenager's. The first should include nodes of intense activity within a connecting system that forms a ballet of movement as a child runs, slides, jump, beside the velocity of the movement itself and learn through the environment. It is not only how challenging the environment is, but also how children interact in it. Opposite are elder people, they prefer to be and not to be part of the animated environment. To watch activities and in the same time to be protected from crowds. Their physical man-made environment should be insulated but not isolated. On the other hand, teenagers represent a different pattern of interaction, they are more mobile and less bound to the unsupervised interaction places, so their interaction patterns are often failed to notice. To achieve the purpose of designing these settings in a suitable way for participants, landscape elements should be used.

5.2.2.4 Landscape elements in open spaces

Elements of the landscape could be natural or man-made. The natural include trees, shrubs, plants, grass and weeds. They are found in forests, parks, along streets, in side walks etc., where plants and trees are botanical entities. The physical characteristics of these natural features affect people's use for outdoor recreation, but they become resources for outdoor recreation only as they are useful for this purpose. Accordingly, what makes any natural feature suitable for recreation use, is the combination of natural qualities and the ability and desire of man to use it.

Physically, the natural landscape elements are enormous. Landscape elements as plants and water vary in shape and use. The function and use of the natural landscape elements in the urban spaces for recreation are beneficial. Plants have various functional uses in outdoor environment, they can fulfil three major functions: structural, environmental and visual.[1] Structurally plants could be used in defining and organising space, affecting views and directing movement in space. Environmentally, plants enhance the quality of the environment and modify climate. Visually, plants could be used as dominant focal points and visual connects or linkages, [figure (5.9)].

Plants' size, texture, form, growth, colour and their position in space either individually or in group affect people's participation in outdoor in various ways. In grouping the plants wasted spaces should be avoided, while form, size and harmony between colour should be carefully selected. Bright colours convey a light cheerful atmosphere while dark colours

[1] Asla, Richard L. Austin, (1982), *Designing with Plants,* Van Nostrand Reinhold Company, New York.

portray a more sombre feeling. Variations in plant colour can sometimes be noticed at relatively great distances in landscape. The natural landscape elements that could be used in open spaces for recreation are more than trees, water is one of the landscape elements that plays a major and important role in recreation design. Beside the visual function of water in open spaces for recreation, the sound effect of moving water could not be denied in masking undesirable noises and to create a more peaceful atmosphere.

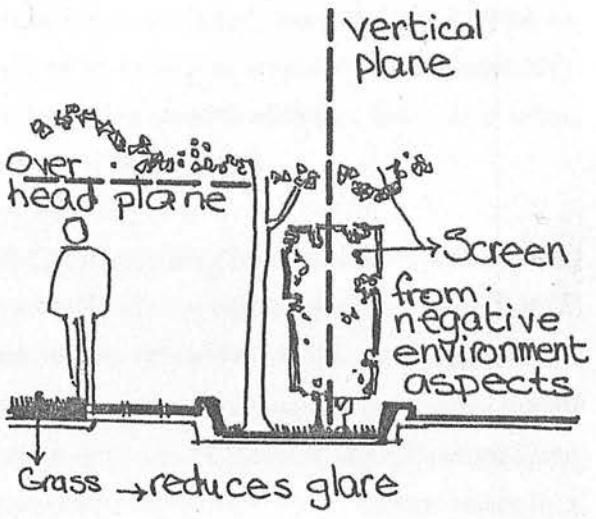

Fig. (5.9), Variation in the arrangement of landscape elements.

The sound of moving water, as fountains and water falls, also affect participants through height, volume of falling water and various edges and surfaces on which water falls. For example when water falls into water the sound and splash are absorbed, but when water falls on a hard surface the sound and splash are intensified. Static flat water could also be used as a plane of reflection for the sky and/or nearby elements. Also the depth and size of water objects largely influence the use, [figure (5.10)]. For example, to enhance reflection, the surface of the pool should appear as dark as possible. [1]

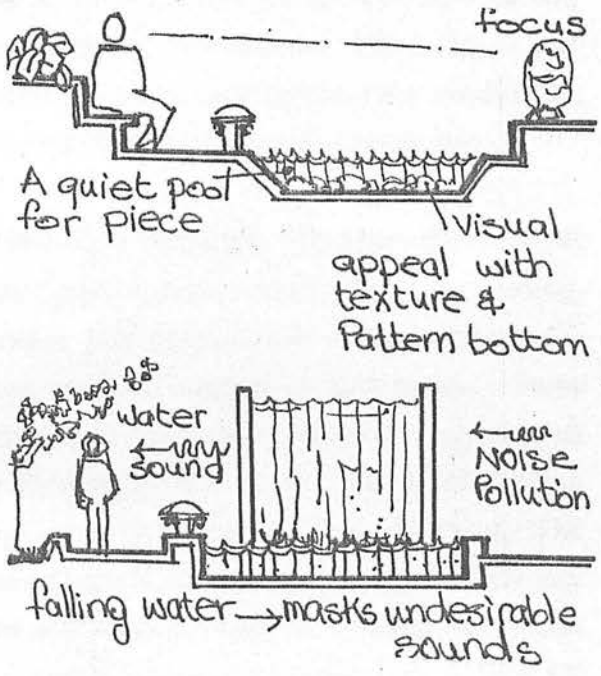

Fig. (5.10), The effect of water objects in open space

In a country like Egypt and specially in summer it is uncomfortable to be in the sun. Whilst during winter and in the early morning this may not be so, the discomfort is caused partly by heat, partly by glare and partly by desiccation. To use open spaces, the local climate should be improved through the landscape elements. In summer the height of the sun makes it impossible to provide effective shade from a simple vertical form such as a wall. It is essential to provide an overhead barrier or screen. Apart from a tree, which is a marvellous natural air conditioning unit, this means some form of hard construction, perhaps slatted or perforated, a lightweight screen, or a more formal architectural device

[1] Booth, Norman K. (1983), *Basic Elements of Landscape Architecture Design*, Elsevier, New york, Amsterdam, Oxford.

such as an arcade or sun loggia. It is important to consider what happens to the heat once it has been intercepted. Secondary heat source by re-emission may be just as bad as original rays of the sun. Furthermore, the level of humidity is relatively low, especially during the summer months. Because it has typically desert climate, there is a wide variation between seasons and between day and night temperature.

Plants as landscape elements, could be used in Cairo in a way that suits the harsh climate and the psychological needs of users. Likewise, as Cairo represents the capital of Egypt, and as a result of its high population, it is noted that the air pollution due to transportation is quite high.[1] Since green areas play a great role in reducing noise, pollution, visual artefacts, discomfort due to high humidity, dust, lack of air movement and reflection from hard surfaces, such as green areas, are more recommended in Cairo. Green areas in a place like Cairo, can greatly assist in maintaining and propagating natural systems that help to purify the air and give peace and freedom for Cairenes' to appreciate their relationship with nature. Landscape elements in a hot-dry climate like in Cairo, should provide ample shade and protection from dust in spring and summer. Large lawns and flower beds without shade contribute little to the recreation possibilities of the inhabitants, ordinary Cairenes, elderly and children alike to rest, relax or play in hot sunny days.

Beside water and plants, there are other landscape elements that have more direct influence on users physically as benches, steps, ramps, lighting objects, bins, sign posting, and other site structures. Their location, shape and arrangement in open spaces for recreation, depend on participants' preferences, use and function in open spaces. Steps and ramps are the major means for moving the participants from one level to another on the ground plane. Both have advantages and disadvantages in design. They could define the limits of an outdoor space by implication if not by actual physical enclosure. The materials selected for the previous sire structure depends on many influences as durability type of use, colour of material selected and the maintenance required. Steps could be also used as secondary sitting surfaces, whenever properly situated, they could act as seats for watching action and other behaviour taking place.

On the other hand, walls and fences as landscape elements have several functions in open spaces for recreation. They could be used for defining spaces, zones, areas and settings. They create spaces that are slightly different from spaces defined primarily by land form and plant materials. They provide hard, well defined vertical planes other than soft ones as plants. Walls and fences could be also used in spaces as screen views from unpleasant visions, modify climate through directing and blocking the wind to create sensible temperature. Also low free-standing walls and low fences can be used as seats.

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[1] See chapter 3 for the demographic characteristics of Egyptians.

Finally seating as benches, walls, flower boxes or other elements is another type of landscape elements that directly affects the use, comfort and enjoyment of outdoor recreation. The materials, type and location of seats largely affect the use of seats. for example, the organisation of benches in a setting largely encourage a "with" or a "without" component to exist.[1] Moreover, shape of benches and whether accompanied with table or not determine the type of activities taking place. Another desirable, though not always possible, characteristics of a seating area is its location in a protected or desired area. The location largely influences types of groups and activities taking place.

5.3 The Interaction Between the Social and the Physical Environment for Outdoor Recreation (the micro-social ecology) :

Donald Ball, in proposing the field of micro ecology stated the following:

> "It is the fundamental task of micro ecology to seek out the functional relationships between micro-space, social actors and their space related conduct and experience with it, and the selves identities so generated and maintained or altered"[2]

In micro-socio ecology, Ball included individual, aggregate and social aspects of people's relation with the environment. The interaction of the social and the physical environment, is a process where different types of social groups define the meaning of objects so that all group members interpret those objects nearly in a similar fashion. It logically follows that outdoor recreation participants sharing common social groups, should be more likely to share a common definition of a recreation place or activity than individuals who do not share the same social group. In recent years, recreation research has increasingly focused upon the ways and degree to which individuals value different environment.[3] The environment has been recognised as an important contributing to recreation choice and demand. Recreation managers have an applied interest in the person/environment interaction in that they provide environmental settings intended to contribute to satisfying recreation experiences for their respective public.

The question of what occupant social groups in Cairo fell about the physical environment, particularly the human-made, can be approached in a variety of ways. One way is the way Cairenes relate to their environment, how they use and integrate with it. Gibson proposed that physical environments have affordance for certain functions and activities.[4]

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[1] The concept with and without component was earlier discussed. Moreover, the relation between the organisation of benches and the social environment will be fully discussed later in the chapter.

[2] Ball, D. W.,(1973), *Micro ecology: Social Interactions and Intimate Space*, Indianapolis, IN: Bobbs-Merrill page 8.

[3] Knopf, Richard C. (1983), "Recreation needs and behavior in natural settings", in Irwin Altman and Joachim Wohlwill (eds.), Behavior and the natural Environment, pp. 205-240, New York: Plenum.

[4] Gibson, J. J. (1966), *The senses considered as perceptual systems*, Boston, Houghton Mifflin page 285.

All the potential uses of objects are said to be directly perceivable. Invariant properties of the optic array specify that the floor affords walking, the pen affords writing and so on. These affordances, arguably, are related to what those environments mean to the people concerned. Although Gibson neglects to point out that affordances are culturally mediated, still his theory largely influence the existence of outdoor recreation activities.

Neisser's remark that the difficulty with Gibson's formulation is that what an object appears to afford, or to mean, depends on who is perceiving it. The perceiver selects among those properties the affordances, by virtue of specific readiness for some and not for others. Perception of meaning, like the perception of other aspects of the environment, depends on schemata control of information.[1] This is quite true, if it is applied to the Egyptian perception of hard landscape as one of the natural environment components, it has been found that there is an Egyptian culturally dislike and fear from the desert. Bearing in mind the high percentage of desert in the Egyptian physical environment. On the other hand, some people may travel for hours to live the experience of this desert.

What the physical environment means to recreation participants can have yet another important dimension. What are the emotions, feelings, connections associated with the physical environmental settings. The quality of a recreation experience is related to the quality of the emotion experienced in the recreation setting. This is another way by looking for meanings and symbolic significance. Rapoport provided a framework for thinking about architecture, activities and levels of 'meanings', wherein he saw the symbolic aspects as the fourth level.[2] Open spaces for Egyptians are likely to be seen as a heaven and Cairenes can have positive as well as negative images and memories of them. For most of them, these places are a symbol of the social self more than of the individual. It is how Cairenes feel about and interact in the physical environment is equally important as what they do in that environment. Adjoining the psychological role of settings in participants attitudes towards recreation, the physical effect should not be ignored.

The organisation and location of site structure elements influence the existence of the social environment. The arrangement and quality of these elements, although seem minor, have a major influence on people's attitude and use of settings. The arrangement of the settings would encourage either a "with" or a "without" component of the social

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[1] Neisser, U. (1976), *Cognition and Reality: principles and implications of cognitive psychology*, San Francisco: Freeman, page 72.

[2] Rapoport, Amos (1970) "An Approach to the study of environmental quality", in H. Sanoff and S. Cohn (ed.) EDRA 1, Raleigh, N. C. School of Design, north Carolina State University, pp. 1-13. and (19730, "Some thoughts on the methodology of man-environment studies", International Journal of Environmental Studies, vol. 4.

environment. According to Hester, the physical environmental settings should be designed to fulfil the followings, according to the needs required to achieve: [1]

A- To facilitate competent interaction between people and the environment:

A.1 Inclusive interactions: through which settings provide a small space where a limited number of people can form an "in group".

A.2 Face to face interactions: which is achieved by providing a space located within a limited distance suitable for this type of interaction, as between two friends.

B- To prevent or discourage social exchange through forcing people to be arranged in a side- by- side position by:

B.1 Exclusive interactions: where settings are represented by the leftover spaces that result from an inclusive setting being the 'out' space. This space is often a conflictive setting, pitting the inclusive group against the exclusive group.

B.2 Parallel interactions: similarly this setting is one that does not foster co-operative face to face interaction. It generally prevents or discourage social exchange by forcing people to be arranged side by side as in the long rows of park benches in many urban parks.

B.3 Congruent and incongruent interactions: they are settings that allow observation of the behaviour of a role model and either the acceptance or rejection of that behaviour.

In summary, the location, shape and arrangement of landscape elements largely influence and is influenced by the social environment. Figure, (9.11) shows some selected shapes and arrangement of seats in open spaces for recreation with reference to the social environment. The straight slab, single pod, circle and curve shape of seats encourage the "without" more than the "with" component to exist. On the other hand, the single jogs and multi jogs shape encourage the "with" more than the "without" component.

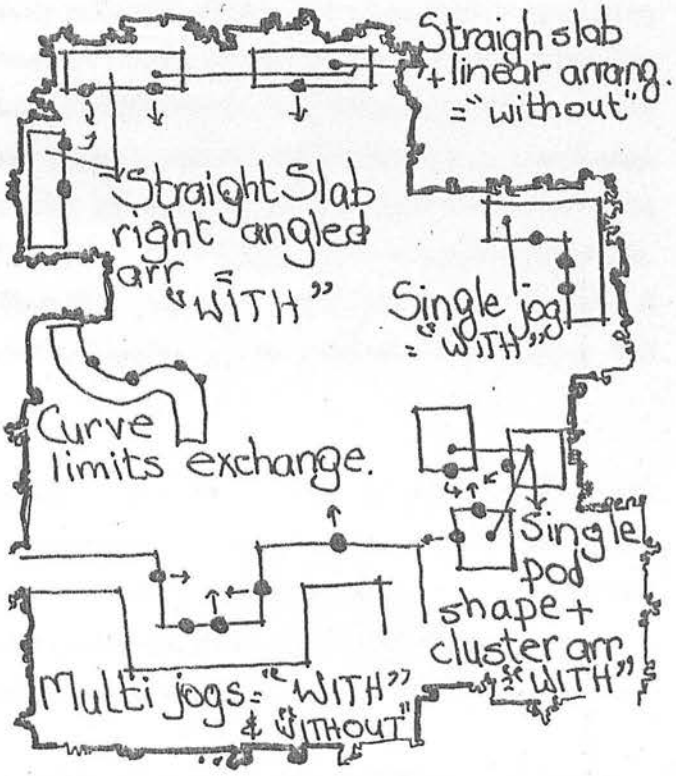

Fig. (5.11), Shape and organisation of landscape elements within environmental Settings to facilitate or prevent social exchange

[1] op cit., Hester, Randolph T. (1984), 2nd edition, p. 30.

Strict linear arrangement of seats, specially if the distance between the two opposite seats is too far discourages the interaction between users. On contrary, right angles and clusters encourage social interaction between users. Finally in terms of location, seats which are located in a moderate setting in terms of quality are more used and preferred than others.

The study of the interaction between the social and physical environment in Cairo will see, as its primary task, the discovery and explication of social ecological phenomena, the description of the interrelationships, cultural, symbolic, molar and functional, between social groups and their immediate physical environment at the micro level. Socially defined relationships with space and architectural structuring of social relations and in the management of self, are seen as important. Micro-social, ecological studies mostly do not assign a determining role either to the physical environment or to the society. Rather, the physical environment is seen as an integral part of the management of social relationships. Cairenes-environment interaction is not a stimulus-response interaction. White argues that it is the process of interaction which inherently satisfies, not the result of interactions. To accept White's interpretation, he suggests that humans find it rewarding to be competent in environments interactions and are naturally attracted to opportunities to do so.[1]

5.4 Environmental Setting Quality:

The quality of human life is directly related to the quality of use and conservation of the physical environment. Environmental quality is one aspect that affects peoples satisfaction in open spaces. Its components and dimension vary between societies. Many recreation outcomes can be fulfilled under highly variable circumstances in a broad range of environmental quality. What is meant by environmental quality is not just the aesthetics aspects of open spaces and to what extend they fulfil recreationists needs. Rather, it is, in a sense, much deeper than that. Rapoport classified the environmental quality into two major meanings or interpretations; physical-chemical-ecological and psycho-socio-cultural qualities.[2]

First: the physical-chemical-ecology quality of the environment; which more related to the physical (natural or human-made) environment, as air, and water quality, noise and visual pollution, crowd and consequences of over population. Specific environmental conditions as; scenic beauty, good weather, crowds, all of which vary between societies and groups. These could be improved to reach a state of acceptance from the users,

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[1] White, A. W. (1961), "Motivation Reconsidered: The concept of competence", in Fiske and Maddi (eds.) Functions of Varied Experience, Dorsey Press, Inc., Homewood.

[2] Rapoport, Amos (1989), "Environmental Quality and Environmental Quality Profiles", in Nicholas Wilkinson (ed.), Quality in the Built Environment: Public and Private Responsibilities in Housing Design and Settlement Planning, Open House International Association Conference Proceedings, The Urban International Press, July

through the landscape elements, e.g. the environmental function of trees as mentioned earlier in the chapter.

Taking crowd as an example, environmental quality is strongly affected by crowding in recreation settings. Many settings require fairly high level of density to function adequately and/or provide optimal levels of arousal and novelty[1], e.g. football matches are always enhanced by the crowd, and would be considered unsuccessful without the spectators' crowd. Theoretical perspectives also predict perceived crowding as a result of stimulus overload when the level of social interaction, or social heterogeneity exceeds that desired or the loss of perceived control when other's behaviour violates expected social norms.[2] Besides, there is some evidence that different cultural groups have different tolerances for crowding and that males and females may respond differently in high-density situations.[3] As Knopf points out that; "people with different motives were reacting to the same environmental features in different ways and feeling differently about what kinds of settings managers should be offering".[4]

The second environmental quality refers to the psychological and socio-cultural qualities of the environment. It represents the more complex interpretation which is related to the much more variable qualities of both the natural and human-made environment. It is the reason why people make choice of specific environmental settings in order to satisfy specific needs. This is relevant to both scales of the environment, the small as sub areas within the open spaces and the larger as the open spaces themselves. The latter could be further classified into two components; the personal factors and the factors related specifically to the activities both of which depend on how far the environment afford them to exist. The personal factors are personal recreational goals and objectives as; enjoying self in outdoors, peace, quiet and relaxation. While the factors related specifically to the activity is the opportunity to participate in other recreational activities while doing the activity proper as; socialising while watching the children playing.

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[1] Johnson, R. C. A. and Manelle R. C. (1983), "The Relationship of Crowd Density and Environmental Amenities to Perceptions of Malls as Leisure and Shopping Environments", Recreation Research Review, vol. 10, no. 4, pp. 18-23.

[2] Stockols, D. (1976), "The Experience of Crowding in Primary and Secondary Environments", Environment and Behavior, vol. 8, no. 1, pp. 49-86.

[3] Gillis, A. R., M. A. Richard and J. Hagan (1986), "Ethnic susceptibility to crowding: an empirical analysis", Environment and Behavior vol. 18 no. 6, p.p. 683-706.

[4] Knopf, R. C. (1987), "Human Behavior, cognition and affect in the natural environment", in D. Stokols and I. Altman (eds.) Handbook of Environmental Psychology, vol. 1, New York: John Wiley, p.p. 783-825.

Summary:

The socio-physical environment is examined with regards to the Cairenes' context. Starting by the social environment, the process of socialisation in terms of recreation is first broadly defined as the process of acquiring basic knowledge about recreation, forming fundamental attitudes and values toward it and learning various recreational skills. This has lead to the definition and classification of social groups. The social groups refers to a group of individuals who define themselves as members of group sharing ideas, values, attitudes towards recreation and who are defined by others as members. They are classified in terms of recreation as family, friends and family/friends' group.

The importance of the social environment is more supported by the following points: First; how participants behave seem to rely heavily on the social environment. Behavioural choice (whether during the initial selection of outdoor behaviour or during the actual experience) is strongly attuned to the expectations of others. Second; it is expected that every outdoor setting has its own normative order, what is accepted as a social behaviour in one may not be in another setting. In outdoor recreation environment, it is common to find groups with potentially conflicting values, segregating into district territories, willingly and voluntarily. Finally; the type of groups (family, friendship or family/friendship) interact differently from one another.

As for the second and third point, Cairenes maintain particular social environmentt characteristics. This is demonstrated by the conflict occurring between the upper and lower social classes. Moreover, coherence between the lower and lower middle class is observed. In terms of grouping it is found that family is the most prevalent form of grouping, followed by the friends group. The latter is mainly formed from neighbours while the former is mostly formed of extended family. This is due to several aspects such as the religious being the strongest influence on Egyptianity.

The physical environment, with reference to Cairo, is then investigated through its two major components; the natural and man-made. The natural dealt with elements like topography and climate. Although Egypt is located within Africa's arid zone, the existence of the Nile modified Cairo's environment. Man has always been able to control the undesirable climatic aspects through moderating the micro-climate.

The study of man-made environment concerns itself mainly with the hierarchy of open spaces; zone, areas, settings and finally landscape elements. Abu-Lughod has physically classified Cairo into zones based on social class differences. The study of other scales of open spaces, i.e. areas, settings and landscape elements has following taken place. Areas are studied with relation to zones. Areas are the constituent elements of zones, i.e. the

some of which forms one zone. Settings are investigated through forms of social interaction; as "with" and "without" social component. The "with" component refers to facilitating social interaction between participants, while the "without" indicates prevention and discouragement of social exchange. The shape and organisation of settings defines such component. Finally, both the man-made and natural landscape elements are deduced. Their function and use in open spaces are distinguished, whether environmentally, visually or structurally, in terms of shape, type and arrangement.

The study of both environments has shown that the environmental setting represents the physical micro open spaces for recreation, which forms participants' image and controls their social environment. Accordingly, the study of the relation between the micro-social environment and the physical arrangement of settings has been investigated with regard to the "with" and "without" component. Moreover, the effect of location, shape and arrangement of both the natural and man-made landscape elements, in relation to both components, are explored.

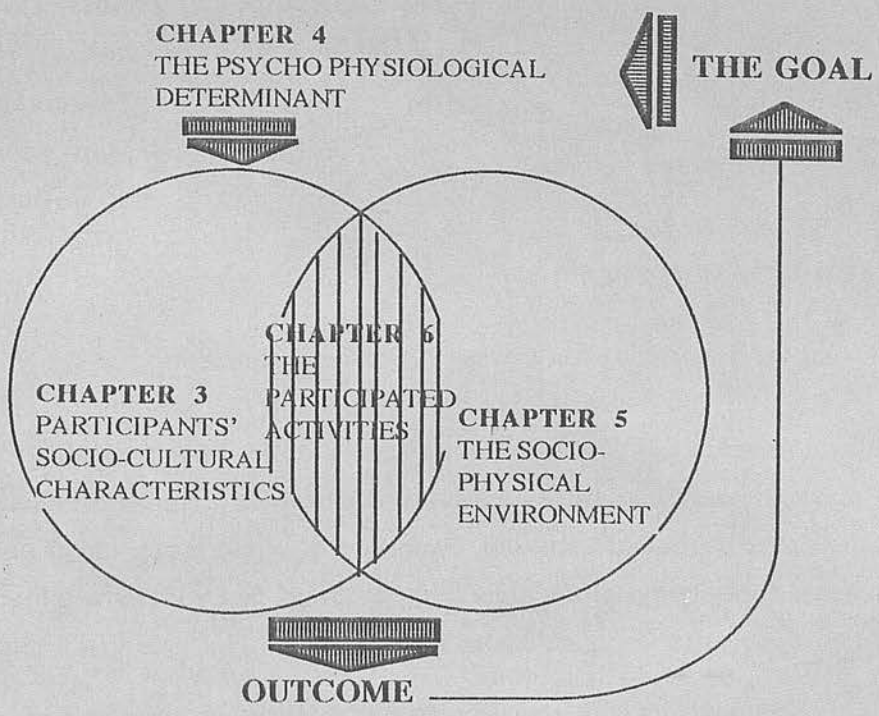
Finally Rapoport's classification of environmental setting quality was investigated. Rapoport classifies the quality in terms of two aspects; the chemical-ecological and the psychological-cultural quality. The former is more devoted to the physical aspects and is modified through improving the physical environment by controlling and reducing pollution as noise. On the other hand, the latter refers to the psycho-physiological aspects of participants' preferences. In other words, selecting the suitable landscape elements that improves the undesirable conditions of a physical environment with respect to participants' psycho-physiological demands, will in turn modifies the quality of the socio-physical environment. For example, in Cairo, the role of plants in moderating the micro climate of open spaces is noticeable. Plants have a sieve effect on reducing pollution and dust in air. Sufficient numbers of trees can make considerable contribution to purifying the air.[1] In addition the psycho-physiological effect of plants in forming Cairenes' image and perception is outstanding.[2]

In conclusion, the interaction between both environments (the social and the physical) affects and is affected by the design of environmental settings. The settings represent the stage on which the socio-physical; form, characteristics and organisation of landscape elements interact. The location and organisation of landscape elements in an environmental setting in Cairo, accordingly, should support both the physical and social environment. This could be acheived physically through supporting the required activities that suits Cairenes cultural beliefs and physical abilities, while psychologically

[1] See chapter one, page 12 also this was more explained in the chapter
[2] See chapter three for the authenticity of recreation with reference to Egyptianity in addition to chapter four for their psycho-physiological demands.

through enhancing the emotional and psychological needs. It is also important to bear in mind the ecological balance of the natural settings, while not disturbing the environmental process. The impact of the socio-physical characteristics does not only affect the micro-climate condition, but also the expected activities and hence participants' satisfaction. Examination of the participated activities takes place in the following chapter.

CHAPTER SIX:
6. THE PARTICIPATED ACTIVITIES



THE RECREATION PARADIGM

CHAPTER SIX

6. OUTDOOR RECREATIONAL ACTIVITIES

The participated activities

"It is through activities that needs are satisfied, and it is at this level that it is meaningful to talk about fit or correspondence between humans and their environment." [1]

The participated activities represent the fourth determinant in the recreational paradigm which results from the interaction between people and the environment, [figure (6.1)]. The importance of activities in recreation stems from the definition that recreation represents the activity or activities (passive or active) engaged in during leisure time. Leisure is time, recreation is activity, the two are closely related but not synonymous.

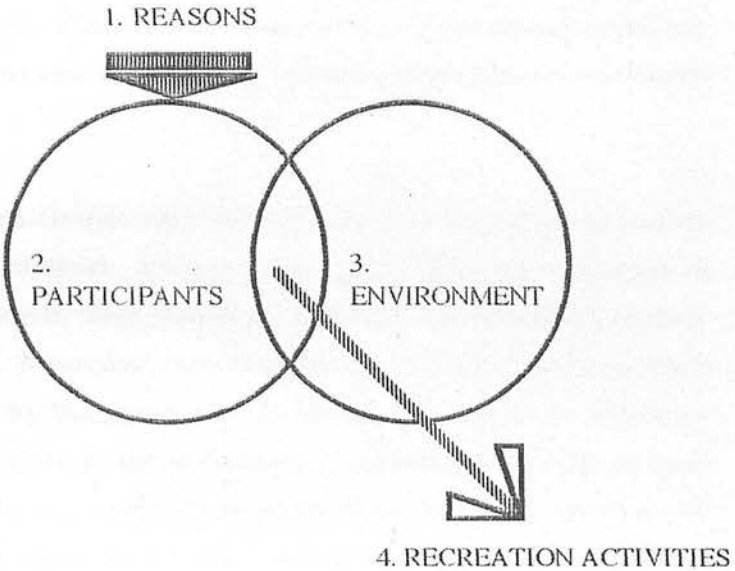


Fig. (6.1), The activity's approach in the recreation paradigm.

In trying to find a way of dealing with outdoor recreation activities, the definition of Altman seems appropriate. According to Altman, activities are generally divided into two main classes; mental and behavioural activities. Mental activities include things that occur in the minds of people, what they see, hear and smell and their interpretations about the physical environment. They also include beliefs and attitudes, positive or negative,

[1] As, Dagfinn (1975) "Observing Environmental Behavior", in William Michelson (ed.), Behavioral Research Methods in Environmental Design, Community Development Series, Halsted Press, a division of John Wiley and sons, Inc., page 282.

concerning environments. On the other hand, behavioural activities indicate what people do and how they act in relation to the environment. These include attempts to achieve privacy and to establish and control territories, migrations and land use.[1] Though the research is interested in both, stress will be achieved on the behavioural activities which could be observed forming the outdoor behavioural activity system. Then relating it to the mental part through its relation to the psycho-physiological determinants of recreation.[2]

The relation between behaviour and mental activities is more understandable from the socio-psycho-behavioural definition. In this sense recreation is defined as a behavioural tendency that influences the direction, persistence and intensity of specific behaviours promoted by that tendency. It is not perceived purely as participation in a recreation activity but as a 'human experience that finds its source in intrinsically rewarding voluntary engagement during non-obligated time'.[3] Activity participation is viewed as a tool to attain the desired experience or result of participation.

Behavioural outdoor recreational activities are considered as the actions through which participants interact with the outdoor environment (physical or/and social), to reach and achieve the aim of their participation. They will be referred to as participated activities. Correspondingly, outdoor recreation activities depend on two main factors; individuals and the environment.

First; participants. Their recreation activities vary according to their degree of subjection to cultural, and physiological constraints. People go to the outdoor environment to behave in a way which is appropriate to their culture background, and according to their psycho-physiological determinants. Moreover, activities are not only affected by people's biological characteristics but also by their personal attitudes. The extent to which an individual participates in some activity is not a function of an inherent or "objective" capacity of that activity to satisfy his motives, needs and preferences. Rather his participation depends upon perception of the benefits provided by that activity and what needs these activities satisfy. Basically, individuals should be attracted to and participate more in activities which meet their needs. Thus different activities which meet the same needs, may be substitutable for one another. It is noted that in outdoor open spaces, the possibility of activities is never limited. Participants can fly a kite, eat, play, etc. What specific activities' individuals select to participate in these open spaces is the objective of

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[1] Altman, Irwin and Martin, Chemers (1980), *Culture and Environment,* Wadsworth Inc., Belmont, California.

[2] mentioned earlier in chapter four, as the second determinant of the recreation process.

[3] Driver, B. L. and Brown, P. J. (1975), *A Social-Psychological Definition of Recreation Demand,* with Implications of Recreation Resources Planning. Assessing Demand for Outdoor Recreation U. S. Bureau of Outdoor Recreation, Washington D. C.

this chapter. In other words, chapter six is devoted to investigate the preferred and type of outdoor participated activities that Cairenes choose to satisfy their recreation needs.

The second factor is the environment, it affects the activity through the 'affordance theory'. Taking the natural environment as an example, it does not only affect people's motivations in outdoor recreation, but also the type of activities taking place. Some activities are totally devoted to specific natural elements, like water sports while others are not. The existence of these sorts of activities highly relies on the natural environment. Yet this does not mean that whenever a natural element affords or supports an activity the latter will exist, part of this depends on people's beliefs and culture. It depends on a person's predisposition, whether or not an affordance or set of affordance is or is not noted. This is partly true as many activities are highly specialised in terms of the kinds of environmental facilities they require, while others are quite undifferentiated in this respect. Mountain climbing needs mountains, water-based activities need water bodies and so on. The affordance theory, however, could not be generalised as a fact since there are cultural differences between societies that largely influence the type of activities' humans participates. Hence in the affordance theory, Gibson neglects to point out that affordance is culturally mediated, and the existence of one environment factor dose not mean that the related activity will thus exist.[1]

Both factors, individuals and environment, could not be typically separated and should be considered in relation to each other. The existence of any activity depends on both peoples' cultural beliefs and the extend to which the environment will afford this activity. Taking swimming in Egypt as an outdoor recreation activity and its relation to water bodies as an example, fortunately Egypt is one of the countries with three natural water bodies, the Nile, the Mediterranean and the Red Sea. In spite of this it is not a common outdoor public activity for females' teens and grown ups, of the lower and lower-middle class. Moreover, desert travelling is not a popular outdoor activity in Egypt although the natural environment affords such activities. On the other hand, through Egyptians' culture greens are highly valued, notwithstanding the hot and arid land they inhabit.

In sum, figure (6.2) justifies the relation between activities (mental and participated), individuals (Cairenes) and the environment, (social or physical).

[1] Gibson's term of 'affordance' was mentioned earlier in chapter four and chapter five.

The environment and participants act like filters for activities in the pre-participated stage to obtain the actual form of the activity proper. The action of the environment is through the affordance while the action of people is through their culture and beliefs. The result could be either a negative or positive outcome. In other words, the possibility of repeating the whole process is high if the participant had positive results from his experience, and vice versa.

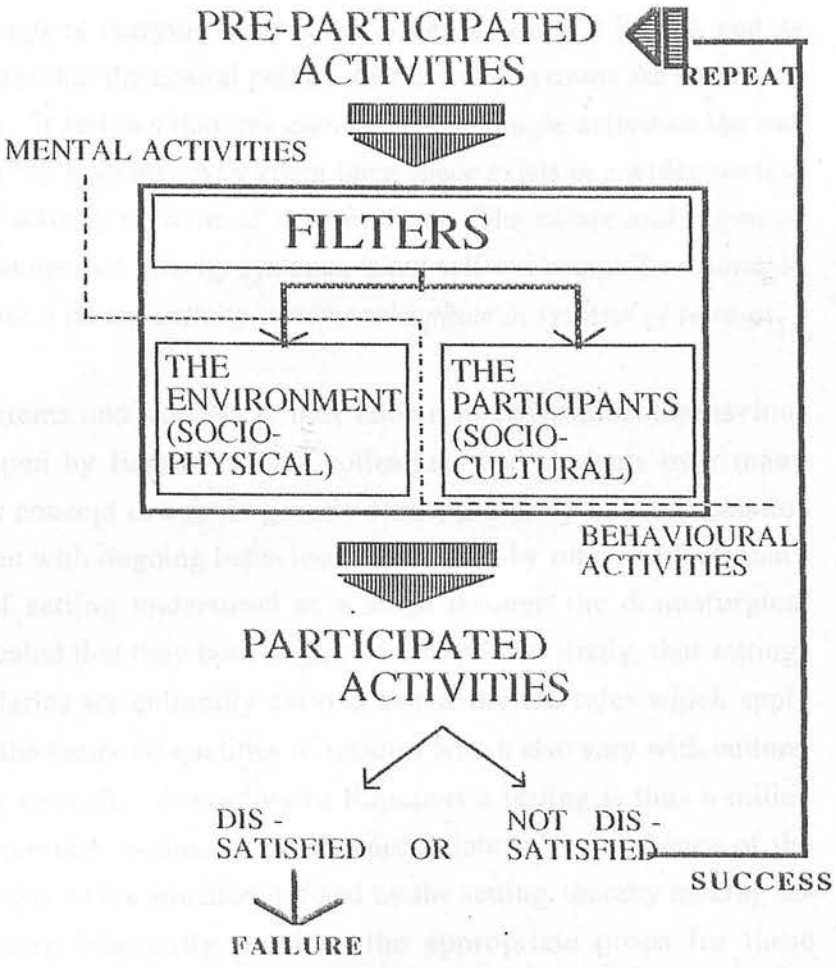

Fig. (6.2), The activities' procedures, (the pre-participation situation and the actual activity).

In order to relate both the mental and participated activities, it is better to study the meaning of an activity system. Outdoor activities pass through a flow system of units of behaviours which was identified by researchers as an activity system. In defining the activity system, Chapin and Brail describes it as "a flow of activities during some specific period of time...during which the person is engaged in the pursuit of his affair".[1] In an activity system, individuals are regarded as behaviour units which perform a series of activities known as episodes, in particular locals. People's activity system reflects their motivations, attitudes, and knowledge about the world within the constraints of their incomes, competencies and cultural norms. Attempts to discover the nature of the urbanite's daily routines have taken several forms, some related to time allocation only, others to time and space.

On the other hand, Rapoport defines an activity system as a system formed of four involving components: The activity itself, how it is carried out, how it is associated with other activities and combined into activity systems and finally the meaning of the activity. Noting that variability with lifestyle and ultimately culture increases as one moves from

[1] Chapin and Brail (1969), cited in Patreous, J. Douglas (1977), *Environment and Behaviour, Planning and every day urban life,* Adison-Wesley Publishing Company, Inc.

the activity itself, through ways of carrying it out, the system of which it is part, and its meaning.[1] He further indicates that the central point is that activity systems are inevitably organised in space and time. It follows that one cannot look at single activities but one must consider the whole activity systems. Any given open space exists in a wider context which is linked through the activity systems of its occupants. The nature and extent of this context, its relation to culture and activity systems, is not self-evidence. To discuss it, it is useful to restate the position taken: *activity systems take place in systems of settings*.

The concept of activity systems and settings is best known in environment-behaviour studies in the form developed by Barker and his colleagues and students over many years.[2] Rapoport used their concept in a more generic sense, primarily as a combination of Barker's notion of a milieu with ongoing behaviour related to it by rule, and Goffman's similar notion of a role of setting understood as a stage through the dramaturgical analogy. Although he indicated that they both neglected two points: firstly, that settings themselves and their boundaries are culturally defined and so are the rules which apply within them. Secondly are the temporal qualities of settings which also vary with culture. Settings are thus culturally variable. According to Rapoport a setting is thus a milieu which defines a situation, reminds occupants of the appropriate rules and hence of the ongoing behaviours appropriate to the situation defined by the setting, thereby making co-action possible. The setting frequently provides the appropriate props for these behaviours and activities.

This chapter will be devoted to studying the way of analysing and observing outdoor recreation participated activities through two main parts. First through classifying participated outdoor recreation activities and second through relating such activities to the descriptive determinants in the paradigm. Correspondingly, in order to relate participants' outdoor activities to their needs and motivations, chapter six will deal with activities through deducing the ways of a typological classification of activities into groups of classifications. Secondly, deducing the time of participation. And finally, studying behaviour settings as a method of relating the participated activities to the other descriptive determinants in the paradigm. In other words, relating the participated activities to the physical environment and participants. Accordingly, chapter six will deal with outdoor recreation activities through the followings:

6.1 Classification of Outdoor Recreation Activities.

6.2 Time of Outdoor Recreation Activities.

6.3 Behaviour Settings and Recreation Activities.

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[1] Rapoport, Amos (1990), "Systems of Activities and Systems of Settings", in Susan Kent, (ed.), Domestic Architecture the use of space: an enter disciplinary cross-cultural study, Cambridge University press, London.

[2] Barker, R. G. (1968), Ecological Psychology, Stanford, C A: Stanford University Press

6.1 Classification of the Participated Outdoor Recreation Activities :

> 'The usefulness of any particular classification will depend upon the purpose for which it is required ... no one classification will suffice for all purposes... and classifications are not mutually exclusive.'[1]

In a broad classification of outdoor activities, Jan Gehl categorises outdoor activities in public spaces into three types; necessary activities, optional activities and social activities, each of which places very different demands on the physical environment.[2]

Necessary activities: These are activities that are more or less compulsory, going to school or to work, shopping, waiting for a bus or a person; in other words, all activities in which those involved are to a greater or lesser degree required to participants. Because these activities are necessary their relation to recreation depends on the participant's perception of work, availability of time and kind of activity. Also this category is classified as the instrumental behaviour, where the order or interest of the city is likely to be experienced only casually or momentarily. Instrumental values of convenience, comfort, and absence of distraction will dominate. Places will be valued for the features that contribute to the success of the activity being pursued: the quality of the environment.

Optional activities: They represent activities that depend on the participants reasons for recreation. If there is a wish to do so and if time and space make it possible. They include such activities as taking a walk to get a breath of fresh air, standing around to enjoy life or sitting and sunbathing. This category depends on the affordance of the environment, and whether it allows the activity to exist or not. According to Gehl, when outdoor areas are of high quality, a wide range of optional activities will occur because place and situation now invite people to participate the activity. Through this category, what Heath calls, the diverse behaviour could occur, where places of high aesthetic quality will tend to become landmarks over and above their specific roles in the activity system of the individual.

Finally Social activities: They embody all activities that depend on the presence of others in public spaces. He classifies these activities as activities which include children at play, greetings and conversations, communal activities of various kinds and finally as the most wide spread social activity, passive contacts, that is simply seeing and hearing other people. These activities also depend on the context in which they occur. Very freely interpreted, a social activity takes place every time two people are together in the same

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[1] Cullingworth as Quoted from Seeley, Ivor H. (1973), *Outdoor Recreation and the Urban Environment*, Macmillan Press, Ltd., page 10

[2] Gehl, Jan (1987), *Life Between Buildings: using public space*, Van Nostrand Reinhold Company, New York, page 11.

space. To see and hear each other, to meet is in itself a form of contact, a social activity. Applying these three categories in the field of recreation, it seams that the two latter types of activities are appropriate to the study. Furthermore it should be cited that social activities could be categorised as a type of the optional activity and not as a separate category.

On the other hand, in the field of recreation, many writers have categorised activities according to classifications which seemed interesting or important on a rational-basis. Through a review of the literature Ritchie exposed two distinct phases in the classification of recreation activities.[1] In the early writings of phase one, several different schemes have been proposed by well-known authors possessing much experience on the study of recreation. Such schemes represent a quantitative summary of the researcher's experience and have provided much to the nature of recreation. To give an example, one of the earliest classifications of recreational activities is Kaplan's in which he hypothesised the existence of different recreation types.[2] The types identified were: social, games and sport, art, movement and immobility. A second classic study in the field of recreation was conducted by de Grazia which represents one of the most comprehensive and factual examinations of recreation.[3] Within this framework activities were classified into a series of polar types. The types were named active-passive, participant-spectator, individual-social, indoor-outdoor, in the home-outside the home, and sedentary-on the feet. This latter classification is not salient, for example; a passive activity could be further classified into social or individual even they could be both participated in either the outdoors or indoors.

More recently is the second phase of search for recreation types. This phase is characterised by more quantitatively rigorous analyses of empirical data. Researchers used single recreation activity as the basic unit to explore activity inter correlation and subsequently dimensions, predominant types or mixes.[4] Others used similarities in the entire participation patterns to formulate recreation typology.[5] A research by Neulinger

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[1] Ritchie, J. B. Brent (1975), "On the Derivation of Leisure Activity Types- A Perceptual Mapping", Journal of Leisure Research, vol. 7, no. 2, pp. 128-140.

[2] Kaplan, Max (1960), *Leisure in America: a social inquiry*, New York: John Wiley and Sons.

[3] De Grazia, S. (1962), *Of Time, Work and Leisure*, New York: Doubleday and Company.

[4] Bishop, D. CW. and Witt, P.A. (1970), Sources of Behavior Variance During Leisure Time, Journal of Personality and Social Psychology, vol. 16, pp. 160-170; also, Witt, P. A. (1971), "Factor Structure of Leisure Behavior for High School Age Youth in three Communities", Journal of Leisure Research, vol. 3 no. 4, pp. 213-219; and McKechnie, G. E. (1974) "The Psychological Structure of Leisure: past behavior", Journal of Leisure Research, vol. 6, pp. 27-45.

[5] Tatham, R. L. and Dornoff, R. J. (1971), "Market Segmentation for Outdoor Recreation", Journal of Leisure Research, vol. 3, no. 1, pp. 5-16; also, Ditton, R. B., Goodale, T. L. and Johnsen, R. (1975), "A Cluster Analysis of Activity Frequency and Environment Variables to Identify Water-Based Recreation Types", Journal of Leisure Research, vol. 7, no. 4, pp. 282-295; and Romsa, G. H. and Girling, S. (1976), "The Identification of Outdoor Recreation Market Segments on the Basis of Frequency of Participation", Journal of Leisure Research, vol. 8, no. 4, pp. 247-255.

has identified seven dimensions of recreation based on a factor analysis of attitudes towards recreation.[1] Again Bishop clusters recreation activities through using a factor-analytic technique. Bishop's analysis included a number of indoor, as well as outdoor, activities. He obtained three stable analysis of reported frequency of participation by adults in a number of different recreation activities.[2] The activities labelled Active-Diversionary were varied, including several sports, dancing and listening to records. Potency consisted of such activities as attending sporting events, bowling and swimming indoors. Status included reading books, adult education, movies and attending plays, concerts and art shows. In a similar study among adolescents, another research by Witt found dimensions of recreation (sports, outdoor-nature, adolescent-social and aesthetic-sophisticated).[3]

Through a replication of the three first factors of the latter investigation another research by Howard was carried out.[4] He examined high school student participation in activities similar to those used by Witt, through which a fourth different factor was found termed Leisure Detachment. A presentation of evidence for a relationship between different needs and reported participation in different activities was achieved in this research.

Additional studies yielded a variety of recreation activity groupings. For example, McKenchie used both "factor" and "spherical" analyses to derive seven factors from an extensive list of activities.[5] The data consisted of respondent rating of past recreation behaviour and anticipated future participation rates. He labelled the factors Mechanics, Crafts, Intellectual, Slow Living, Neighbourhood Sport, Relaxing Entertainment, Social Interaction, Achievement-Oriented Hobbies and Shopping.

In his research Ritchie employed other methods of data collection and analysis to identify dimensions underlying activities.[6] Based upon similarity ratings of 12 recreation activities he derived four bipolar dimensions: active-passive, individual-group, simple to perform-difficult to perform and involving time-filling. An additional analysis revealed five types of activities: Active-sport, relaxing entertainment, social interaction, achievement-oriented hobbies and shopping. The dimensions derived in these studies varied, possibly due to differences in activities analytic procedures and samples.

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[1] Neulinger, J. and Breit, M. (1969), "Attitude Dimensions of Leisure", Journal of Leisure Research, vol. 1 pp. 225-261.
[2] op cit., Bishop, D. W. (1970).
[3] op cit., Witt, Peter A. (1971).
[4] Howard, D. R. (1976), "Multivariate relationships Between Leisure Activities and Personality", Research Quarterly, (47), pp. 226-237.
[5] op cit., McKenchie, George E. (1974).
[6] op cit., Ritchie, J. B. (1975).

On the other hand, according to London, Crandall and Fitzgibbons, these previous researches of classification of activities into groups had several problems.[1] One conceptual problem is that results of cluster and factor analyses depend on what dependent variable is analysed. Most analyses are based on people's ratings of how much they do each activity. The activities within a cluster are assumed to be similar or substitutable. However, two activities would not be substitutable merely because they are done in a similar amount of time. Rather, substitutability should be based on the similarity of the activities on dimensions which determines choice, such as the needs they fulfil or the amount of pleasure they provide. Also, they maintained that analysis of recreation activities based upon the needs they satisfied should provide more information about the meaning and substitutability of recreation activities than analyses based solely on participation ratings. In order to develop a psychologically meaningful categorisation of recreation activities, London Crandall and Fitzgibbons focused on three things that should be taken into account simultaneously: the activities, the needs they satisfy and individual differences in perceptions of their need-satisfying properties.

In another attitude of classifying activities, Yu considered two types of recreation activity classification that have been reported: single recreation activities and participation patterns in their entirety.[2] Using principle component analysis Yu developed a recreation typology of some seventeen core cells into which 95% of respondents were classified. The typology accounted for the participant variation among fifteen activities. A promotion of criteria has been implied as possible recreation typologies: degree of physical involvement, resource setting, and vicinity to users. Some researchers provided a review of previous activity typologies and summarised the criteria used as types of activity or types of participants.[3] Others provided a similar review[4] and quoted further typology criteria: groups of individuals, places of activities and frequency of participation as well as simple presence or absence of participation.

Furthermore, the majority of outdoor recreation participation research has centred on individual activities or the primary activity of participants. The search for the most popular or key activities has commonly resulted in the identification of the lowest-common-dominator type to which participants activities can be taken. Certainly such assignment is meritorious and essential for planning. Yet when used in isolation and without broader distinguished categorisation, the sole of identification for participants'

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[1] London, Manuel; Crandall, Rick and Fitzgibbons, Dale (1977), "The Psychological Structure of Leisure: Activities, Needs, People", Journal of Leisure Research, vol. 9, no. 4, pp. 252-263.

[2] Yu, J. M. (1980), "The Empirical Development of Typology for Describing Leisure Behaviour on the Basis of Participation Patterns", Journal of Leisure Research, vol. 12, no. 4, pp. 309-320.

[3] Christensen, J. E. and Yoesting, D. R. (1977), "Social and Attitudinal Variants in High and Low Use of Outdoor Recreational Facilities", Journal of Leisure Research, vol. 5 no. 2 pp. 6-15.

[4] op cit., Romsa and Girling, (1976).

primary activity can lead to astigmatic planning for the non-existence 'average' participant.

In another interesting attempt of relating activities to their purpose, Gold classified outdoor recreation activities into four categories of experience[1]: 1) Physical recreation: which requires exertion or physical effort as the major experience of the activity, 2) Social recreation: which involves social interaction as the major experience of the activity, 3) Cognitive recreation: which includes cultural, educational and creative or aesthetic activities, 4) Environment- related recreation: which requires use of a natural resource such as water, trees, scenery, or wildlife to provide the setting, or focus, for an activity.

In essence, this part seeks to identify a typology which describes the forms, patterns and mix of recreational activities participants undertake, and relating it to Cairenes. Furthermore, relating this typology to the psycho-physiological determinants. As Yu clarified, a fundamental goal of scientific knowledge is to develop systems for classifications or typologies. Large numbers of participants may be classified into groups having distinctive profiles with homogeneous inter group profiles. In addition to increasing the understanding of recreation behaviour, knowledge of a recreation typology facilitates more effective planning through distinguished categorisations. From the previous theoretical and empirical studies for classifying recreational activities, and as this study is limited to outdoor recreation in urban spaces, the research will categorise outdoor recreational activities through the followings:

6.1.1 Forms of Outdoor Recreation Activities.

6.1.2 Categories of Outdoor Recreation Activities with Relation to the Pattern.

6.1.3 The Activity Mix and Package.

The interrelationship between the three groups of classification is shown in figure (6.3), where forms of activities embody patterns, while both forms and patterns could be participated by the same person and mixed forming activity package.

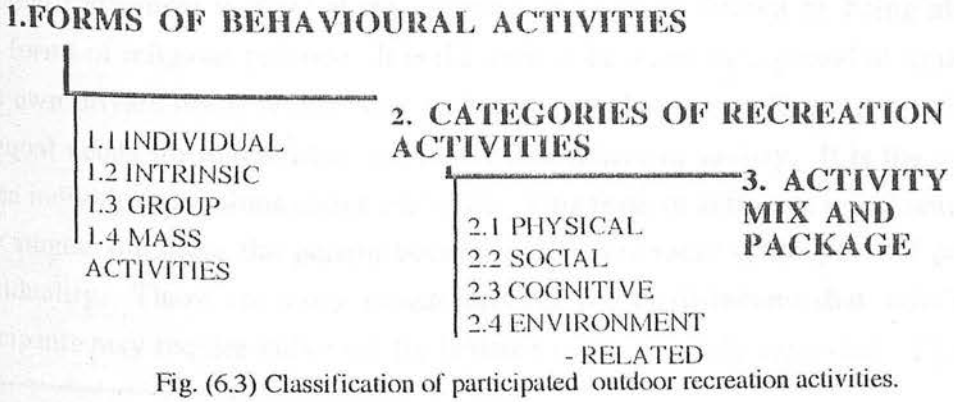

Fig. (6.3) Classification of participated outdoor recreation activities.

[1] Gold, Seymour M. (1980), *Recreation Planning and Design*, Mc Graw-Hill, Inc.

6.1.1 Forms of Outdoor Activities in Relation to Social Groups:

There are individual variations in outdoor activity participation, hence it is useful to study variability among different groups as well as the variability within groups. Forms of outdoor activities will be related to social groups due to several reasons which were cited before.[1] The meaning for outdoor recreation activities emerging from the social group are consistent with broader social psychological, notions about the sources of meanings for all objects. Different social groups engaging in the activity would assign different meanings to that activity. Burch found that the type of social group within which an individual participated influenced recreation behaviour. It further was suggested by him that differing social group types might also differ in their desire for levels of the same experience (e.g. amount of facility development).

Through this part, outdoor recreational behaviour might best be understood by examining the meanings assigned to activities by specific social groups. A direct link between variation in social group and variation in the meanings assigned to particular outdoor recreation activities is quite beneficial. Outdoor recreation activities have many forms which might be classified as individual, intrinsic, group and mass in social setting.

This classification greatly depends on the number of participants and their socio-cultural characteristics. Also the existence of such activities is influenced by the type of social groups and their interaction. Hence these four forms of outdoor activities will be studied and related to Cairenes as follows:

6.1.1.1 Individual activities.
6.1.1.2 Intrinsic activities.
6.1.1.3 Group activities.
6.1.1.4 Mass activities.

6.1.1.1 Individual activities:

Considerable recreation is individual in nature, some walking, running, jogging and other movement is done alone. Complacency is facilitated by being alone as are some forms of religious practice. It is the need to be alone for a period of time. To have one's own private needs which want to be expressed without affecting the life, privacy and equal needs for uniqueness and identity of others in society. It is the self need to choose individual decisions about one's life. This form of activities is influenced by life-cycle stages, the more the person becomes older the more is the need of privacy and individuality. There are some constraints for the environment that suits this form. Participants may require either totally isolated space or partly separated. This depends,

[1] See chapter three for the general characteristics of Egyptianity and chapter five the part devoted to the social environment for the importance of the social aspects within the Egyptian context.

largely, on the "with" or "without" component discussed in the previous chapter. In addition individual outdoor activities are preferred to be away from crowds and may require authentic scenes.

In relating this form of activity to Cairenes, it is expected not to be one of their favourable in outdoor spaces for recreation. This does not mean to have the right to interfere with others in the outdoor recreation space but what is meant is the existence of such exclusive activities does not exist in a noticed rate through their social context.

6.1.1.2 Intrinsic activities:

This relation is mainly formed through at least two persons sharing the same beliefs, behaviour, and interests. It is shaped largely from relatives, school, college, work or neighbourhood. This relation has no psychological fences. Through this relation feelings and thoughts are expressed. It is a two way relation formed through talking and listening. Recreation with nuclear group associates such as family and close friends may well be the major single category of this form of activity. In general, Cheek and Burch have presented evidence that outdoor recreation is related to friendship roughly half the time with the exception of sports. When family and friends are combined as "intrinsic", then most outdoor recreation falls into this category. In fact, far and away the most common social scale for recreation is that of primary groups, persons with whom we have quite regular interaction. This form of outdoor recreation activities is influenced by life-cycle stages, mainly people of same age category select each other, where they largely share same behaviour and interests. From this category outdoor recreation forms of activities in Cairo is expected to start to be conspicuous.

6.1.1.3 Group activity:

Outdoor recreation in social groups other than intrinsic, is also important. These groups often share common interests, culture and behaviour. They involve in group discussion and decisions. They do not have to share private problems, subjects are general, what is happening around, exchanging information and determine the attitude of others. The number of participants involved in this relation is more than that of the previous one, although it is limited in a way to encourage discussions. This is formed as an extension to the need of friendship. This relation is also a two way relation, depending on talking and listening. Some times this main group may split to sub groups, depending on the number, subjects and sometimes age.

It could include either different or same life-cycle stages. For example a school trip will embody same life cycle stage while a private picnic will include different life stages. In Cairo, the females are expected to be more involved in passive activities through watching the children and conversations, while men will be either discussing serious matters as political or even involved in active participation as informal football, [figure (6.4)].

Fig. (6.4) Group activities in Cairo's outdoor spaces for recreation.

6.1.1.4 Mass activities:

Some activities are engaged with the mass culture, the football crowd is part of its character. That mass quality may engender responses and meanings that would be quite out of place in a smaller group where identity may be quickly known. Mass activities are formed by a group of people who are not related in a two way relation. Some are just watching, a one way relation, while others are involved in activity or conversation, a two way relation. This group may be formed from subgroups or/and individuals with nothing in common in between unless the need to be there. The number of people involved is unlimited, depending on the ability and facility of space. People of various interests, social classes and life-cycle stages form this kind of group. The activities' form is largely affected by the environmental settings, and the "with" or "without" component. Each of these forms of activities has a pattern which is largely affected by the typology of such activity. This will be studied and related to the Cairenes' context through categories and patterns to outdoor recreation activities.

6.1.2 Categories of Outdoor Activity with Relation to the Pattern:

Outdoor recreation activities could be categorised in several ways. From the previous literature and research mentioned at the beginning of the chapter, many researches handled activities from different points of view. The research will use Gold's classification and will relate it to the patterns of activities classified by de Grazia.[1] Gold's classification has been selected as it is more generalised and appropriate to outdoor recreation.

[1] mentioned earlier in the chapter .

Gold classified activities with relation to the outcome and participants ways of engagement. Activities were classified into four categories; physical, social, cognitive and environmental related recreation activities. On the other hand, de Grazia classified activities in general to active-passive, participant-spectator, individual-social, indoor-outdoor, in the home-outside the home, and sedentary-on the feet. Since the research is devoted to outdoor recreation activities, so indoor recreation will be omitted. Participants-spectator category is studied through the one or two way relation classification, while the individual-social is fulfilled in the forms of activities. Accordingly this will lead to the passive and active outdoor recreation activities. The passive and active will be referred to as patterns of activities.

The activity pattern indicates to the way people are engaged in outdoor recreation activities. For the outcomes of such pattern of activities, a number of benefits could result. It is affected by many factors, mainly the culture and environment, and within these two elements it differs through various social classes of individuals of specific stage in life-cycle. The two patterns will be related to the categories of outdoor recreation within Cairo's context through the followings:

6.1.2.1 The physical outdoor recreation.

6.1.2.2 The social outdoor recreation.

6.1.2.3 The cognitive outdoor recreation.

6.1.2.4 The environmental-related outdoor recreation.

6.1.2.1 The physical outdoor recreation activities with relation to the patterns :

Physical outdoor recreation activities indicate to activities that require exertion or physical effort as the main experience of the activity. An increasing demand for physical recreation arises from people's changing way of life. There has been a diminishing requirement for physical effort, both in people's occupation and their daily life, as a result of scientific and technological progress. The need of physical sports comes from their physical and psychological benefits for body, health, exploring the inside tension and interactions in all forms of activities from individual to mass. In the individual form, through personal enjoyment, growth and well-being. Also exercise has shown to be as effective as other stress management techniques in reducing ongoing levels of anxiety. More specially, exercise has been reported to be effective as the relaxation response, stress inoculation and quiet rest.[1] While through the group form it is through enjoying being in groups playing the same game and sharing common interests.

[1] Waknel, Leonard M. and Berger, Bonnie G. (1990), "The Psychological and Social Benefits of Sports and Physical Activity", Journal of Leisure Research, vol. 22, no. 2 pp. 167-182..

Physical recreational activities by definition refer to sport involvement which is voluntarily chosen and which produces intrinsic rewards. Physical activities are mostly in the form of structured games or play taken for the purpose of recreation or amusement in recreation time and containing an element of competition or challenge against self, opponents or the elements.[1] The importance of challenging the intrinsic motivation is emphasised in the flow theory of Czsikszentimahalyi. Total immersion in an activity, the state of flow, must frequently result when one faces challenges appropriate to one's skills.[2] Competitions or championships are considered as one form of outdoor active sports for recreation, while the other is non-competitive sports for pleasure, such as walking, jogging and bicycling.

Relating such category to patterns of outdoor recreation, it could be mentioned that physical outdoor activities are mostly active. They could include passive use formed by the audience of the game. The activity pattern of sports is guided by rules and boarders. Moreover, they have universal rules known between societies. Such rules are culturally universal. However, in general the existence of a specific game depends largely on the affordance of the environment. Physical outdoor recreation could include other categories of activities as environmental related activities. For example, due to the geographic location of Egypt, swimming as an outdoor activity is largely participated in summer, while as a result of the topographic and climatic characteristic of Egypt, climbing and skiing as outdoor activities do not exist. Also, some of the physical activities are affected by social class.

Although football is a favourite activity for most Egyptians it is commonly viewed in streets of lower and middle classes than upper ones. On the other hand, some activities are mutually exclusive to specific social class, i.e. hunting, polo, golf, diving, scoop diving and croquet. Such activities are mainly performed in private clubs whenever possible, [figure (6.5)].

Fig. (6.5) Croquet as a sport participated in private clubs, (Heliopolis Sporting Club).

Age also represents a strong factor affecting people's choice of activities' pattern. It could be mentioned that children are very mobile, and the more they get older and pass through

[1] Countryside Recreation Research Advisory Group (1970), *Countryside's Recreation Glossary*, Countryside Commission.

[2] Csidszentimahalyi (1975), cited in Waknel, Leonard M. and Berger, Bonnie G. (1990), "The Psychological and Social Benefits of Sports and Physical Activity", Journal of Leisure Research, vol. 22, no. 2 pp. 167-182.

life stages the less they participate in active sports. For example children run, jump, slide and play most of the time with no extra noticed effort.

Generally in Cairo and as a result of either the climatic condition or lack of awareness of the importance of the physical activities' award, it is expected that most Cairenes prefer non-physical activities more than the physical. For them sitting, talking and watching others is a recreational activity that is more common than most active ones. This leads to the next category of activities in outdoor recreation which is the social.

6.1.2.2 Social outdoor recreation activities with relation to the pattern:

Social outdoor recreation involves social interactions between participants as the major experience of the activity participated. The way participants are involved in social outdoor recreation is largely affected by the culture of the society. How they socialise in an outdoor environment, what is accepted and what is not, differs through the diversity between societies and within societies.[1] As an example, the Egyptians traditional culture implies some sorts of passive patterns related to the families group, through which socialising is the common process. Sitting and watching others, however, may be a valid form of social participation for many Cairenes. Apart from the environmental and cultural constraints, and due to most Cairenes' life style, passive activities are expected to be favoured. Most Cairenes' men work in the mornings and evenings so they prefer to sit, relax or go to coffee houses whenever there is available free time. In contrary women, if they work in the mornings, are occupied in the evenings by their house work and children. In their free time, however, they mainly socialise with members of the family or friends, particularly neighbours.

The social outdoor activities could be mainly related to the passive pattern. This is not constant, as some active ones could result social activities. Participants can enjoy walking while chatting with a friend, a basket team may perform social activities as a result of their active participation, etc. Within the Egyptian context there are many social-passive activities that need to be cited, i.e. attending outdoor sports and events, socialising, walking for pleasure and picnicking. Some of these passive activities exist in parks as socialising, picnicking and accompanying the children, while others exit in street fronts as attending and watching out-door sports events.

Moreover, one of the most popular social- passive activities in Cairo is playing back-gammon. Most Egyptians' men enjoy playing backgammon, it is mostly participated either in coffee shops or private clubs in the outdoors., [figure (6.6)].

[1] See chapter one for culture universal and diversity.

In sum there are some factors that affect peoples' choice of the activity pattern. Age is one of the main factors that affects participants' choice of activity category and pattern. The more participants develop in life cycle stages the more they prefer social and cognitive recreation activities, and vice versa. This is due to many aspects, mainly the physical condition and ability.

Fig (6.6), Backgammon as a preferable outdoor recreation activity participated in coffee houses and private clubs.

Moreover, peoples' attitude, the affordance of the environment, participants' psycho-physiological conditions also play a main role in the choice of the pattern of the activity participated. For example, many social passive activities depend on the quality and aesthetics of the environment. As an example the Nile in Cairo represents a main natural source for recreation. In the extremely hot and permanently sunny climate, the Nile represents an authentic and environmental source for recreation.

6.1.2.3 The cognitive outdoor recreation activities with relation to the pattern:

Cognitive recreation includes cultural, educational and creative or aesthetic activities. It is understood that recreation is a state of mind. This explains why it is so easy for humans to engage in certain forms of recreation by doing nothing more than thinking. People's passive recreational use of an outdoor environment is for relaxation, and release of anxiety and tension of life. From the definition of cognitive recreation activity it is clear that such activities are affected by people's culture. For example desert travelling and bird watching are not favourable cognitive recreation activities in Cairo.

Cognitive outdoor recreation activities are mainly passive. Cairenes are expected to enjoy sitting, lying, watching and pleasure driving (for fresh air). Active outdoor recreation could be related to the cognitive activities as in walking while enjoying a scene. The type of such scene depends largely on the environmental aspects and whether the activity could exist. Accordingly, some outdoor activities which are supported by the affordance of the environment become cultural-activities, i.e. in many Canadian-American neighbourhoods of Boston area, street hockey and ice-hockey are the preferred activities.

6.1.2.4 The environment-related activities:

Environmental-related activities are the ones that require natural resources and are devoted to such resource. Most of the outdoor sports as climbing, ice sports and water sports are organised games that depend largely on the affordance and quality of the environment. This does not only influence whether the activity will or will not exist at the first place, but also the time of participation. As an example for the influence of climate on sport outdoor activities, in Egypt football is already a very popular sport. In summer and because of the climatic constraints it is noticed that it is participated in the Hara at the afternoons when the weather is cooler. This is controllable as it is possible to enhance the quality of the space by establishing belts of trees to provide as much shade as possible for players and spectators also this may help the activity's time to extend. Thinking about establishing grass pitches is not sensible in a dry weather like Cairo but hard surfaced pitches are more reasonable.

Some outdoor recreation activities could not exist without the affordance of the environment. Such activities are the ones that are totally devoted to natural resources e.g. fishing, boating, tourist activities as camping, fishing diving and scoop diving. Also some sport activities do not exist in Cairo as baseball, ice-skating, mountain climbing, skiing and snow-mobilising. The absence of such activities is due to the topographic and climatic typology of the environment.

Categories of outdoor recreation activities are not instinctually separated in time and place nor is the activity within each pattern. This largely depends on the specific type of activity and the reason of participation, i.e. a family may use a park for watching the children playing (the main reason of participation), while watching the children other activities will exist as picnic, socialising, playing football, watching others and so on. Such activities require specific facilities within the open space to exist and mix. This concept of mixing activities in time and space and the needs they satisfy is the interest of some researchers and is identified by some as activity package and others as activity mix. Both the mix and package of outdoor recreation activities will be defined and studied in time and space through the next point.

6.2.3 Activity Mix and Package:

Emphasis to identify activity mix typologies has been connected with activity substitution. Evidently the ability to successfully substitute activities has remarkable implications for both recreation planners and managers. The research of Christensen and Yoesting is a suitable example, they found that 45%-67% of participants could substitute recreation activities for each other, with similar satisfaction across a range of activity

types.[1] Through their research, the activity mix participation has been related to the amount of time for recreation, the group types with whom one recreates and the personality characteristics. Other research by Tatham and Dormoff presented a methodology for determining both the socio-economic characteristics and activity preferences of selected outdoor recreation market segments.[2] They clustered individuals on socio-economic characteristics and then investigated the sets of activities participated in by the individuals comprising each cluster. Findings of such studies imply that individuals tend to engage in a set of activities rather than one particular pursuit.

Despite the recent attention which has been given to identifying factors which may induce within-activity variability in satisfactions, much within-activity variability in satisfactions remains unexplained. Failure to fully account for the variability in satisfactions within an activity may result from researchers associating satisfactions with a single activity when in fact, many participants often participate in several recreation activities during their visit to a particular site. For example, a participant who travels to an open space for a picnic may enjoy other activities as playing an informal football match. This secondary activity or activities also affect the quality and type of experience achieved by that user. A recognition of these secondary activities may hold important clues for understanding the satisfactions associated with users participating in a main activity.[3] The sum of activities (main and secondary) participated by every individual in the setting is recognised as activity package.

Repeatedly research which has examined the satisfactions associated with recreation activities has assumed that recreation activities and their associated satisfactions occur singly. This approach has failed to recognise the possibility that secondary activities also engaged in may significantly affect the overall package of satisfactions normally ascribed to a single activity. If secondary activities do affect the satisfactions ascribed to a primary activity, it may be desirable and necessary to examine activity packages rather than individual activities when considering the satisfying experiences provided by recreation participation. Activity packages are best defined as the entire set of activities engaged in during a single recreation experience.[4]

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[1] op cit., Christensen and Yoesting (1977).
[2] op cit., Tatham and Dormoff, (1971).
[3] McCool (1978) as quoted form Buchanan, Thomas (1983), "Towards an Understanding of Variability in Satisfactions Within Activities", Journal of Leisure Research, vol. 15, no. 1, pp. 39-51.
[4] Buchanan, Thomas (1983), "Toward an Understanding of Variability in Satisfactions Within Activities", Journal of Leisure Research, vol. 15, no. 1, pp. 39-51.

Every activity needs specific setting to be fulfilled, this greatly affect the type of activity package. In other words, the possibility of the existence of mixed activities depend largely on whether these activities could be mixed in time and setting or not. Mix of activities could be achieved in the same setting at the same or different time. For example the environmental setting of walking is different than that of swimming, so these two activities could not be mixed in the same physical setting at the same or different time. On the other hand, a physical setting for a mass sport activities (foot ball) could be used for group passive activities (sitting or performance) at a different time. Besides, it should be noted that conflicts and problems of scheduling may arise in connection with the temporal organisation of activities in time and space. If two groups inhabit a physical setting but were engaged in different activities at the same time this may cause conflict, i.e. one group is having a picnic and talking in private matters while others are playing a very noisy football match. Hence to study the mix of activities through their form and pattern, time should be also considered.

6.2 Time of Outdoor Recreation activities:

The organisation of time has been neglected in environmental research and design, but may be understood in at least two principle ways. The first refers to large-scale, cognitive structuring of time such as linear flow versus cyclic time; the future as an improvement versus the future as the likely to be worse future orientation versus past orientation. Such time structuring also influences how time is valued and therefore, how finely it is subdivided into units. This in turn, influences the second major way in which cultural differences in the organisation of time can be considered the tempos and rhythms of human activities.[1] Time in the research will be dealt through two scales; the phases and frequency of participation as follows:

6.2.1 Phases of time.

6.2.2 Frequency of participation.

6.2.1 Phases of Time for outdoor recreation activities:

For recreation, in general, one of the widespread and holistic classification of time is Clawson's classification.[2] He classifies recreation time into five phases, he rejected the assumption that the actual outdoor recreation activity on the site is the total recreation experience. On the other hand, he views it much broader than this through five phases of time which are :

[1] op cit., Rapoport, Amos (1990)

[2] Clawson's classification has been mentioned earlier in chapter one, within this chapter it will be studied in full.

6.2.1.1 First phase: The first phase is anticipation, this phase of time includes the planning for the activity itself. The thinking may be brief or may take over weeks or months other members of the family or participants will be involved in this phrase. Within this phase the mind is the main element of planning and it involves calculating and discussions. The recreation experience goes further when the anticipation and planning lead to a positive decision.

6.2.1.2 Second phase: It is what he indicated as travel to the actual site. The amount of travel and its cost may vary. The satisfactions and dissatisfactions of travel to the site vary considerably between individuals, between routs and between sites visited. While some individuals or groups may enjoy the travel itself, others seem to regard the trip as a necessary nuisance. This second phase of time depends also on the site and how long the participants will stay, i.e. in annual holidays people may spend a month on site so a travel for days will be considered logic in comparison.

6.2.1.3 Third phase: Third phase is the on site experience and activities. This is the major phase of the total recreation experience. It is the aim that promotes and causes the four other phases. Besides, activities are the usual consideration when thinking of recreation as swimming, running, walking, etc., and all the other myriad activities engaged in an outdoor recreation area, and the satisfactions from them. This third phase, although it is the part which is usually discussed, may be less than half of the total, whether measured by time involved, expense occurred, or total satisfaction gained. Because the research is devoted to urban areas for recreation, this phase seems the important one within the context. In some outings, specially those taken during vacations, several sites may be involved, with intermediate travel between them. A family may visit a few national parks, and some relatives during a single vacation trip. Each of the sites is important and the experience at each contributes to the total enjoyment. Generally, in a typical one day outings, it is often a single site involved and that will determine the third phase.

6.2.1.4 Fourth phase: It is the part of travelling back. This is a different experience than that of the second phase, often the difference is not in the route itself, but in the participants. Their frame of mind and body from their last experience of recreation, e.g. people returning from a long vacation, returning through a long route are usually tired.

6.2.1.5 Fifth phase: The recollection is the fifth phase of the total outdoor recreation experience. After the experience is over, the participant recall the memory of the total experience either in his memory or through sharing these recollections with friends, relatives or associates. Recollection may produce feelings quite different from the actual

experience, exotic events that seemed catastrophic at the time may provide much fun and conversation later.[1]

Clawson, also calls the whole recreation experience by package deal; all parts are necessary and the sum of satisfactions and dissatisfactions from the whole must be balanced against total costs. Pleasurable parts of the experience may be more than the unpleasant parts, if any, in case of repeating the same kind of experience. Within these phases of time for recreation, there are many differences between societies' participation through years, days and hours. This is so obvious in a Muslim country like Cairo where weekends, as an example, are on Fridays also holidays within the year depend on the religious events, which will be further studied in full. For the purpose of the research, the concentration will be on the third phase bearing in mind the other four. In a sense, this chapter indicates to the how and what question of Cairenes' recreation experience. It is the form of participated activities and the time they need to do it.

6.2.2 Frequency of Time for outdoor recreation activities :

The frequency of activities' participation within a society is affected by its culture. Within this culture, frequency of participation is determinant by the previous five phases. Through the available free time people's choice and span of phases is largely affected.

In applying such concept on Egyptians, as Muslims, it is noted that at the beginning of many Suras of Qur'an, Allah swear by part of time such as day, night, dawn, forenoon and afternoon.[2] The scholars interpret it as an indication of the importance of time. The tradition also has affirmed this importance in the Moslem life and reminded him of his responsibility at the Day of Judgement. The prophet (PBUH) said: 'A servant of Allah will remain standing on the Day of Judgement until he is questioned about his life how he spent it, and about his wealth from where he acquired it and in what way he spent it, and about his body as to how he used it.' It should be mentioned that time influences Egyptians recreation behaviour, as any other society, from yearly to weekly and finally to daily participation.

6.2.2.1 The year: Summer holidays represent the year occasion where participants escape the heat and enjoy the outsides. Although for school age children and teens, the mid term holidays represent their second important occasion for recreation. Because it is in winter their participation in the outdoors is largely influenced by the weather. Beside

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[1] Clawson, Marion and Jack L. Knetsch (1960), *Economics of Outdoor Recreation*, the John Hopkins press, Baltimore.

[2] Sura 54; Al Qammar (The Moon), Sura 89; Al Fajr (The break of Day), Sura 91; Al Shams (The Sun), Sura 92; Al Lail (The Night), Sura 93; Al Dhuha (The Glorious Morning Light), and Sura 103; Al Asr (Time through the Ages).

these two yearly occasions for Cairenes it is noted that there are other anniversaries that take place at particular periods of the lunar. The Muslim's year is ruled by the first and last days of observing the moon. The main religious festivals are celebrated throughout the land where Egyptians look on family, local and festivals as the high spots of the year.

6.2.2.2 The Month: Starting by Ramadan the tenth month of the Muslims' year every one fasts from sunrise to sunset, except of Muslims who could or should not fast. In the evenings there are huge meals at homes and in mosques. Such meals are attached with general rejoicing. The evenings of Ramadan are very lively, cafe's public spaces and places of entertainment remain open accordingly, and the town is fully lighted up, crowded and active, till an hour or more after midnight; enjoying the same atmosphere. For children, they enjoy the evenings of Ramadan carrying coloured lanterns in the streets or round the house, singing special songs. Mosques are always crowded, men assemble there and perform prayers and parts of the Qur'an. Through having a quick look at a Cairenes' Hara, the first thing that will be noticed is the widespread source of popular enjoyment which is afforded by music, the decorations hanging between the buildings, the lively social outdoor spaces specially after sun set, [figure (6.7)]. The loudspeakers transmit favourite tunes from public places, coffee houses full of neighbours and friends, open spaces where children and teens play football and families' gatherings.

Fig. (6.7) The Hara as an outdoor space in Cairo decorated for Ramadan by the inhabitants.

The end of the month comes Eid al-Fitr, three days spent in hospitality and visits. Every open space is crowded with families and friends, streets are full of children wearing new colourful clothes. After about forty days, Egyptians celebrate Eid al-Adha; which is the Feast of Sacrifice, when families who can afford buying a sheep do so several days in advance to amuse the children. In the first day of Eid al-Adha the animal is sacrificed and divided equally to three parts, to the poor, relatives and neighbours and the third to the family it self.

In both feasts families pay visits to the homes of their friends, neighbours and relatives and some families visit their dead, taking a picnic to the cemetery where celebrations carry on unabated. The streets present a gay appearance from the crowds of passengers in their holiday clothes. Many swings and other performers amuse a dense crowd of spectators; Egyptians of every class rank and age take great pleasure in viewing public spectacles, [figure (6.8)]. If it happens that any feast is in the summer, it will be noted that a large percentage of Cairenes will escape the heat to the beaches through travelling to places like Alexandria or Ras El-bar.

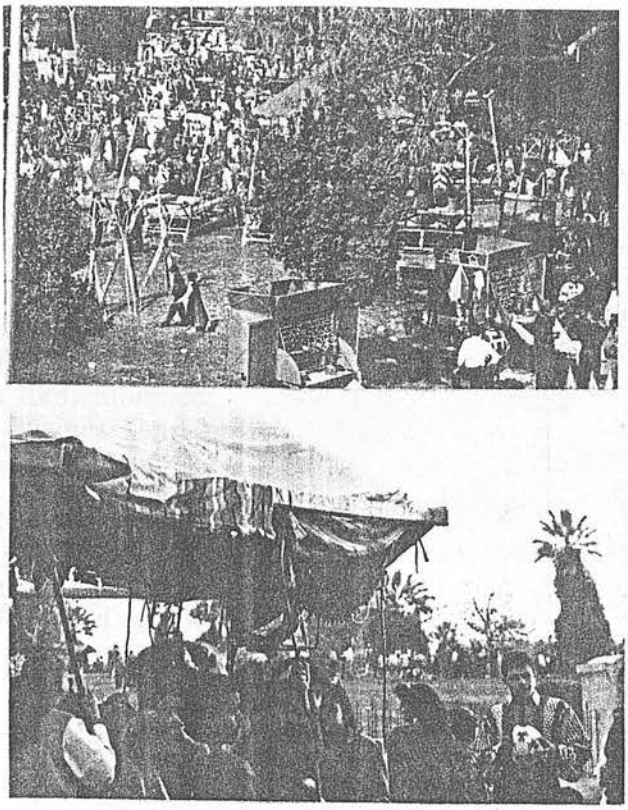

Fig. (6.8), the celebration of Eid-Al Fitr in public open spaces in Cairo.

Certainly Egypt is a land of feasts; to the feasts of the Muslims the feasts of the Egyptian Christians is added. When both Muslims and Christians partake of a feast which is older than either religion: it is the spring festival of *Sham el Nasim* - "Smelling the Breeze". The spring festival of *Sham al-Nasim* is of ancient origin; it is by definition an out-door occasion when all families take a picnic and seek the outdoors or the countryside from the early hours of the morning. Picnic is the passive secondary activity which is accompanied with most main outdoor recreation activities. The form of these activities is always grouped or intrinsic where families and neighbours represent the main organisation. Beside these year outdoor events there are the *Mulids* ; and specially the *Mulid al-Nabi* which is the birthday of the Prophet. Generally, Mulids represent a major festivals of the countryside, huge fairs are organised for celebrating the birthday of a local holy man. There is all the fun on the fairground; bright lights and blaring music, swings, roundabouts, stalls selling trinkets and sweetmeats, [figure, (6.9)]. The event serves as a commercial fair and as a religious festival, centred on the local mosque or shrine and celebrated with prayer.

Fig. (6.9) The celebration of Mulid El Nabi in Cairo.

6.2.2.3 The week: For the weekly based events they usually happen in weekends. Fridays are the week holiday for Muslims, where Cairenes participate in outdoor recreation after the Friday prayers. The importance of the Friday prayer is reflected in the Jumu'a or the Assembly (Friday) Sura in the Qur'an;

> Ye who believe! When the call is proclaimed,
> To prayer on Friday (The Day of Assembly),
> Hasten earnestly to the Remembrance;
> Of God, and leave off Business (and traffic):
> That is best for, you If ye but Knew,
>
> And when the Prayer Is finished,
> then may ye Disperse through the land
> And seek of the Bounty Of God: and celebrate
> The Praises of God Often (and without stint):
> That ye may prosper. Sura 62 (9-10)[1]

On the Friday of every week, there is a local meeting in the cultural mosque of each local centre. It is the weekly meeting of the Congregation, when Cairenes show their unity by sharing common public worship. They meet earnestly, pray, consult and learn by social contact in the mosque. When the meeting is over they just scatter and go about their life, from this moment every Friday the possibility of outdoor recreation participation starts. Outings are mainly to the parks, zoo, by the Nile or any where within the city. For the middle and high social class it is mostly in private sport clubs. Further more in the weekly basis there are other outdoor recreation events within the week as national holidays.

6.2.2.3 The day: Finally, on the day basis as Muslims time should be important in Egyptians' life, each Muslim should remember God for himself or herself five or more times every day, the prayers are scheduled by time and are controlled by the sun. Dealing with the available time, life-cycle stages also has a great influence on recreational participation. The greatest amount of free time appears to be concentrated at the extreme ends of age continuum with the adolescent and the retired having considerably more time at their disposal than the middle age group who live under a greater degree of time pressure.

Accordingly, through considering time, settings for activities should be further studied. It is noted, and as mentioned earlier, that the same physical setting could be used for different forms of activities, but this require different behaviour from the participants. This leads to the concept of behaviour settings. When designing open spaces for recreation it is not the single activity that should be taken into account, but the activity

[1] The Holy Qur'an; Text, Translation and Commentary, A. Yusuf Ali, Amana Corp. USA.

system. This includes latent as well as manifest functions, and how it is carried out (the activity itself, its form, category, pattern, whether it is a main or secondary activity and the types of activities within the package). Both systems, the activity system and the system of settings, vary culturally along many dimensions. Hence open spaces organisation for recreation should be considered as a system of behaviour settings. Behaviour setting theory provides comprehensive almost total, information of the behaviour of users in the environment. Information can be used to answer many questions regarding the space as well as input in programming a new space. The theory represents a way of analysing the previous typology of recreation activities in Cairo, in addition to relating the participated activities to the two other descriptive determinants of the recreation paradigm; participants' socio-cultural characteristics and the socio-physical environment.

6.3 Behaviour Settings and Outdoor Recreation :

A major censure of applying sociology and psychology research to planning and design is that this research is usually focused on testing ideas, which are precise questions phrased to establish a relationship between single cause and single effect. A common argument between researchers and practitioners is that the results of research often do not provide direct, useful answers that can be easily applied in a design and planning process. Also, one of the major problems in planning and design research is how to gather information needed in programming and design, such as the activities taking place in the space and their relationship with the quality of space required, the capacity of place, etc. In trying to answer these questions, researchers searched for new approaches in gathering data in a non-hypothesis testing way. One of these approaches that was found to work well is the behaviour setting survey.

The concept of behaviour setting was developed by a group of behavioural scientists, who call themselves " ecological psychologists", because they are concerned with human behaviour in the every day environment. Their discovery was based on extensive observations of children's streams of behaviour within their natural environment. Whereas it was recognised that human behaviour is too complicated to be analysed as a whole, they discovered that human behaviour can be broken down and studied in a smaller, manageable bit in the natural setting where it occurs. Their approach to the study of behaviour, is similar to that of those who are developing the ecological theory of perception, with one important exception. Ecological psychologists believe that the fixed environment exerts a degree of coercion of the behaviour of individuals. In this way they were influenced by the assertion of Kurt Lewin that the fixed environment possession an "invitational quality".[1]

[1] Lewin, K. (1936), *Principles of Topological Psychology*, New York, Mc Graw-Hill.

Behaviour settings as environment-behaviour units occur naturally [1] or culturally[2]. Their 'place' in the specific area is located in an eco-behavioural science[3]. Barker views behaviour settings as the fundamental environmental unit that forms the proximal environment of many molar action. Behaviour settings refer to a common set of interrelated socio-cultural and temporal boundaries specific recurring patterns of behaviour to carry out the settings essential functions i.e. the setting program. Barker emphasise the three components of behaviour settings as the physical properties, human components and the setting program. He did not emphasise the relationship that exist between how a place is made and managed and the relative competence of the people in the setting, rather he simply described the behaviour settings. In the behaviour setting approach, the way a behaviour setting came to be and the particular constellation of competencies at work in its maintenance are not critical to the description of the setting per se. Behaviour setting theory takes as a given the current norms of how environments are made and manipulated. Settings are described as self-regulating, as if such self-regulation could not be subject to alternative modes of environmental decision-making.

The question now is what are behaviour settings? The term behaviour setting had been defined by several researchers. According to Wicker, behaviour settings are small scale systems composed of physical objects and people, which are confirmed in such a way as to carry out a routine program of actions within a specific time and a place limits or bounds.[4] In the same sense Rapoport defines behaviour settings as places where particular activities occur, and they have boundaries which inform people that they are entering a different place. Once inside, the setting provides cues for appropriate behaviour which depends on these cues being noticed, read and obeyed, i.e. on cultural agreement about the nature of cues and appropriate behaviour. It is significant that the same people behave very differently in different settings.[5] In other words a behaviour setting has been defined as a stable combination of one or more extra-individual patterns of behaviour surrounded by non-psychological milieu, or as a combination of standing patterns of behaviour and its surrounding milieu, i.e., a setting and a program. The same idea is supported by Barker through what he indicates as the setting programs which are lists of orders that are informed by input from other participates and from the physical

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[1] op cit., Barker, R. G. (1968). Bridging

[2] Fuhrer, Urs. (1990), ~~Bringing~~ the Ecological Psychological Gap: Behavior settings as interfaces, *Environment and Behavior*, Vol. 22 No. 4, July 1990 (pp. 518-537)

[3] Barker, R. G. (1978), Need for an Eco-Behavioral Science. In R. G. Barker and Associates *Habitats, Environments, and Human Behavior* (pp. 36-48), San Francisco, Jossey-Bass.

[4] Wicker, A. W. (1983), *An Introduction to Ecological Psychology*, New York: Cambridge University Press.

[5] Rapoport, Amos (1976), *The Mutual Interaction of People and their Built Environment: A cross cultural perspective*, Mouton Publishers, The Huge Press, page 298

milieu of the behaviour setting. Barker informs that people's actions are most directly influenced within behaviour settings by setting programs.[1]

Correspondingly, not only do behaviour setting systems differ spatially; they also differ in time, different groups use such systems differently in terms of frequently, periodicity etc. and the amount of time spent in different parts of the system. Clearly different groups have different behaviour setting systems. Also the same people behave differently in different settings. In fact, behaviour settings can be seen as spatial organisations with their accompanying rules and meanings. This helps in considering the rules, which relate human activities and behaviour to these space organisations.

The setting for a particular activity, as a physical entity, must then supply it with the necessary props and facilities. It does not determine behaviour it is inhibiting, facilitating or neutral, richness and facilities needed by different behaviour settings, although in urban analysis, the behaviour setting system is more important. Furthermore, behaviour setting represents a stable combination of behaviour and phenomenal environment which process the following properties; a recurrent behaviour pattern, a particular phenomenal, a specific time period and strong congruence between behaviour and phenomenal environment. Accordingly there are three components of behaviour settings which could be presented by; humans, physical objects and the setting program.

The stability of behaviour settings, which indicates that behaviour setting continue their functions over long periods of time, despite the internal and external conditions change, according to Barker is attributed to certain internal circuits that link the components of a setting (i.e. Cairenes, participants, benches, playing equipment). These circuits are of two types: first the operating circuits which carry out the setting program and provide satisfaction to participants, and the second is the maintenance circuits that preserve settings in a homeostatic state by dealing with threats to the setting program. The latter circuits are incited only when it appears that some event or condition may disrupt the program. Barker's theory of behaviour settings is essentially a theory of maintenance circuits. Although the theory identifies operating circuits, it does not provide any details of how programs are organised and carried out, or how personal inputs affect these processes. This is a notable, omission because operating circuits are the reason settings exist, they are the primary process that maintenance circuits protect and restore.[2]

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[1] Barker, R. G. (1968), *Ecological psychology*, Stanford, CA: Stanford University Press.
[2] Wicker, Allan W. (1987), "Behavior Settings Reconsidered: Temporal stages, resources, internal dynamics, context", in Daniel Stokols and Irwin Altman (eds.), Handbook of Environmental Psychology, vol. I, by John Wiley and Sons, Inc., Canada.

The research is more directed to the operating circuits of settings within open spaces for recreation in Cairo. The theory will be applied to the factors of the recreation paradigm and studied through the followings:

6.3.1 Behaviour Settings and Socio-cultural determinants of participants.

6.3.2 Behaviour Settings and the Environment.

6.3.3 Behaviour Settings and the psycho-physiological determinants.

6.3.4 Out door Recreation Activities within Behaviour Settings.

6.3.5 Time and Behaviour Settings.

6.3.1 Behaviour Settings and the Socio-cultural determinants of participants:

It was found that age and position in life-cycle affect recreation activity participation.[1] Certainly one's position in life-cycle affects his participation in outdoor recreation activities. Families with small children tend to exploit recreations in which all can jointly participate; young, single males are predisposed toward more active, more challenging and perhaps more competitive activities; elderly retired couples frequently seek reasonably passive but gregarious recreation activity. In this sense where one stands in life has an important effect in setting out the bounds within which recreation behaviour is likely to take place.

Also socio-economic and socio-demographic variables are related to recreation behaviour. This variable has a number of dimensions: an income effect is clearly distinguishable, rich people can obviously afford expensive forms of travelling and recreation than the less affluent. Accordingly, places of recreation are also affected by income, i.e. the location of coffee houses every where in the Hara of the lower class in Cairo symbolise such aspect. There is also a class effect, certain recreations have prestige associations which influence recreation behaviour; education effects, recreation time effects, and a number of others are present, but these elements will tend to be strongly inter-correlated so that the broad differential of socio-economic status has an importance of its own. Whether such characteristics as 'requires equipment' or 'costs money' are truly inherent in activities is an arguable point. It could be averred, for example that whether an activity costs money depends on one's perspective and it may ultimately be a number of social convention to agree that skiing, for example, costs money while walking by the seashore does not. For most activities, cost may be only a matter of degree that differs between individuals.

Participants in the behaviour settings theory are the agents of both circuits.[2] They produce the recreation behaviour in settings and affect others behaviour. As Barker states "although essential people are anonymous, they are equipotential; their individuality is

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[1] Mackay, J. (1981), *Growth in Resource-based Recreation: a pilot study of indicators*, Ministry of Conservation Victoria.

[2] Both circuits; maintenance and operating were previously mentioned in the chapter.

irrelevant to behavior settings. People in this respect are not different from other behavior objects in the settings".[1] Participants significantly influence the development of behaviour settings through their life-style, life-cycle and number of people occupying the setting. For example, the age distribution of participants affects the number of people will pay effort to travel to such settings. Also people represent an important factor in the continued existence of behaviour settings in both circuits. For example the playing area for children will still function as long as it is occupied at any time, whatever the characteristic of the children participating.

6.3.2 The Socio-Physical Environment and Behaviour Settings:

The physical environment, as mentioned earlier in this chapter, is one of the major factors affecting people's participation and activities in outdoor recreation. Taking the natural as an example, seasonal and climatic orientations differentiate among activities in ways that influence the distribution of demand throughout the year and among the regions. Winter activities are clear examples of seasonal specialisation. Others, not directly limited by seasonal conditions; nevertheless tend to be modified by climatic conditions.

The physical environment permits a range of behaviours, and the individuals' choice of a particular behaviour is likely to be conditioned by the behaviour settings. While behaviour in the behaviour setting is a learned response, it is largely conditioned by the contextual environment and modified by the individual's experiential and behavioural environments. In a broader level, the environment consists of sets of behaviour settings.

Combining the environment with behavioural settings it could be concluded that environmental settings include not only the physical components that are present, but also the social and individual behaviours that occur within them. In this sense, environmental settings represent a process defined by their participants and the nature of their interactions. The boundaries of a particular setting are defined not only by the setting's physical properties but also through its interactions with other physical and social systems. The environment in this sense is an open system. Hence, behaviour settings in recreation open spaces in Cairo exist in a large social/physical environment that affects Cairenes' behaviour.

Barker stated that the place where a behaviour setting occurs or milieu is equipped with non-psychological objects. Those behavioural objects are intersections between a person's life space and the ecological environment.[2] Fuhrer supports the idea, confirming

[1] op cit., Barker (1960) page 21.
[2] op cit., Barker, R. G. (1968).

that particular objects tend to evoke similar responses from the same person over time and for different people. Thus objects tend to be used to communicate meanings. Those denotative meanings represent important contextual determinants of the actions of settings through the use of cognitive schemes. Not only single object, but even geographical places are characterised by their denotative meanings. Both objects and places are a source of social life. Thus, denotation is the variance of meaning shared within a group or culture. It facilitates the co-ordination of action despite possible individual differences in the meanings applied to those objects and places. Some of these objects (and places), however, are associated with personal or collective experience, personal or cultural beliefs and evaluations.[1]

Several types of behaviour objects may be necessary to the program of a setting: "equipment" or "tools". Behaviour setting theory provides an inclusive notion of social structure, it links the patterned behaviour to behaviour objects and to particular places and times. Open spaces for recreation require these objects; "tools" as benches, playing elements and "equipment" as supplies of seeds and water. How these "tools" and "equipment" are organised in the behaviour settings to fulfil the behaviour recreation activities of social groups is one of the research questions. The fit between outdoor activities as actions and the features and arrangements of the physical objects of the environment is called in the behaviour setting, behaviour-environment synomorphy. An example is the fit between the arrangement of benches in open spaces for recreation in a children area and parents watching. Children playing in their world of setting and tools while parents are watching clearly and comfortably as sitting socialising or just thinking. In other words, how to enhance the organisation of the physical environment of the setting to enable outdoor recreational activities to exist, through the landscape elements from equipment and tools.

6.3.3 Behaviour Settings and the Psycho-physiological determinants:

According to Barker, behaviour settings will exist only as long as they continue to provide satisfactions to occupants. He does not specify the types of satisfactions that settings provide, but he notes that even in the same setting different people achieve different goals, depending on "their own unique natures".[2] The various satisfactions that people gain from settings are products of the orderly enactment of setting programs: in a sport game, as an example, the spectators by cheering up the team to victory, the team by playing a good game, the referee by earning money and so on. Because of such benefits, settings are occupied with participants that if the result of participation is not 'non-satisfied' so the behaviour settings succeeded in its role. But if the result is 'non-satisfied'

[1] op cit., Fuhrer Urs. (1990).
[2] op cit., Wicker, (1987), in Stokols and Altman, page 625.

so there is a sort of deficiency in the operating or/and maintenance circuits. Such deficiency could be pointed out through the observation of behaviour settings and thus maintained.

6.3.4 Outdoor Recreation Activities within Behaviour Settings:

The relation between behaviour settings and activities participated could be summarised in the following points:

6.3.4.1 The form of activities participated within the setting, this could be encouraged and facilitated through the organisation of settings' objects from landscape elements i.e. tools as benches. The way such tools are organised affect the form of activity that exists beside the "with" or "without" component mentioned in the previous chapter.

6.3.4.2 The activity's category and pattern largely depend on the quality and facilities within the settings, i.e. some physical activities need hard surface and standard objects to exist as volley ball and tennis, even some fun games as hopscotch are preferred to exist with hard surface. Others may require suitable objects organisation and selection, i.e. social activities will not exist with a "without" organisation of setting tools.

6.3.4.3 The types of activities within the whole package of participated activities and the characteristics of both settings and the objects should be considered. Besides, regarding the possibility of mix between the activities in the same setting and time.

Seeing how outdoor activities are distributed in space and time as well is fundamental to understanding basic aspects of social life in open spaces for recreation. All interactions and activities occur in a particular space and has specific period in time. Participants activities over the course of a day tend to be zoned in time as well as in space. As participants move through the temporal zone they are also moving across space as well. This leads to the next component affecting both the recreation paradigm and behaviour settings.

6.3.5 Time and Behaviour Settings:

Recreation activities vary and are organised in time. This involves in the one hand the differential sequencing of activities in time as well as space, and their classification in lifetime, annual, seasonal, weekends and so on. According to Bechtel and Zeisel, it should be perfectly obvious that any observation covers a slice in time and can never cover the full life history of an environment. The time scale of observation ranges from

one year in the classical ecological psychology studies to a few minutes in a classical time-motion study of human factors.[1]

In relating time to behaviour settings there are two interrelating scales of time, first is the time of behaviour settings and the second is time within the behaviour setting. Both scales are largely affected by the settings' circuits. The former is affected by the efficiency of the maintenance circuit, and the way the operating circuit works. While the latter is more affected by the operating circuit. The research is more interested in time within the behaviour settings and the rhythm of activities participated in. This does not mean that the maintenance circuit will be neglected, in contrary it will be studied in relation to the operation circuit. Time through the observation of behaviour setting in a society should take the frequency spans of participation into account as the use of open spaces for recreation within these periods will largely differ.

Summary:

Outdoor activity system is explored in this chapter. Altman finds out that participants maintain two activity procedures; mental and behavioural (participated) activities. Both are largely influenced by the socio-physical environment and participants' attitude (the filters). Focusing on the participated activities, a typology classification of outdoor recreation was deduced using Jan Gehl, Gold and de Griaza's classification of activities.

Outdoor participated activities are classified according to their form, pattern, and mix of activities and package. Form of activities was related to the social groups of participants as individual, intrinsic, group and mass. Furthermore, these forms of activities are carried out through categories and patterns of participation. Patterns of activities are classified in terms of active and passive, meanwhile categories are classified as physical, social, cognitive and environment related activities.

All of which could mix in any form in time and space. The conditions of mix depend largely on the quality of space and time of mix. The reason of participation could be the main activity but the outcome of the recreation experience was a result of a secondary activity, which in turn lead to satisfaction. Besides, studying the recreational subtypes within an activity package, it appeared possible to explain user differences in preferences towards physical, and social settings. As activity mix and package was found to be largely influenced by time.

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[1] Bechtel, Robert B. and Zeisel John (1987), "Observation: The World Under a Glass", in Bechtel, R. B. and Michelson, W. (eds.), Methods of Environmental and Behavior Research, New York, Van Nostrand Reinhold Company, pp. 11-41.

Time has a great influence on the recreation paradigm. It is studied through two main scales; phases and frequency. Clawson and Knetsch identified five distinctly different phases. The research is found to be more concerned with the third phase (on-site) of participation. The frequency of participation, found to differ between societies and was applied to the Cairenes style of life on its four basis.

In order to trace the linkage between activity systems and the other determinants of the recreation paradigm, the behaviour setting theory is examined.

Barker's view of behaviour settings is as small-scale social systems whose components include people and inanimate objects. Within the temporal and spatial boundaries of the system, the various components interact in an orderly fashion, establishing the setting's essential function. To reach this function, participants interact within their social environment in time and space, their physical environment, in sequence action and the participated activities. Behaviour settings as a process was chosen, within this context, for several reasons:

1- They represent a middle-sized ecological units through which the socio-physical environment influences participants' behaviour in outdoor spaces (the environmental approach).
2- Behaviour settings provide a link between socio-physical and psycho-physiological determinants (the reasons' approach) with relation to the single individual (people's approach) or group (social environmental approach).
3- They supply a basic unit for spatial organisation in open spaces for recreation (the environmental approach)
4- A system of relating the participated activities to the mental or subjective factors (reasons' approach).

Because of all these reasons, the behaviour settings theory will be applied to the recreation paradigm through its four determinants; the socio-cultural, the psycho-physiological, the socio-physical and the participated activities. This lead to the followings:

1- Relating behaviour settings to the socio-physical characteristics of the environment. The socio-physical relation will be defined in each setting through the organisation of the landscape elements, tools or equipment, and both the "with" and "without" component. Also the types of social groups within the settings will be defined. The physical environment will be identified through the quality of the setting and the physical constraints the environmental.

2- Investigating the socio-cultural characteristics of participants within the settings: this will help to design appropriate objects that suit the participants' characteristics to help the operating circuit to work efficiency.

3- Studying activities within the behaviour setting; their form, categories, and mix or package. This will lead to analysing the participated recreation activity.

4- Time and behaviour setting: Finally, it should be kept in mind that the survey of behaviour settings should be deduced within a zone of time that could cover; weekends, weekdays, special events, and/or change of seasons.

To validate these conditions there should be an application of the concept of behaviour settings to the recreation paradigm within the Cairenes' context. Through such application, the psycho-physiological characteristics of participants will be examined with relation to the participated activity. Beside investigating the suitability of the physical landscape elements to such activities. This will be further elaborated through the third part of the research which is devoted to the case study.

PART THREE
III. APPLICATION OF THE BEHAVIOUR SETTINGS' AND DRIVER'S POOL METHODS TO THE RECREATION PARADIGM

PART THREE

III. APPLICATION OF THE BEHAVIOUR SETTING AND DRIVER POOL TO THE PARADIGM.

Introduction:

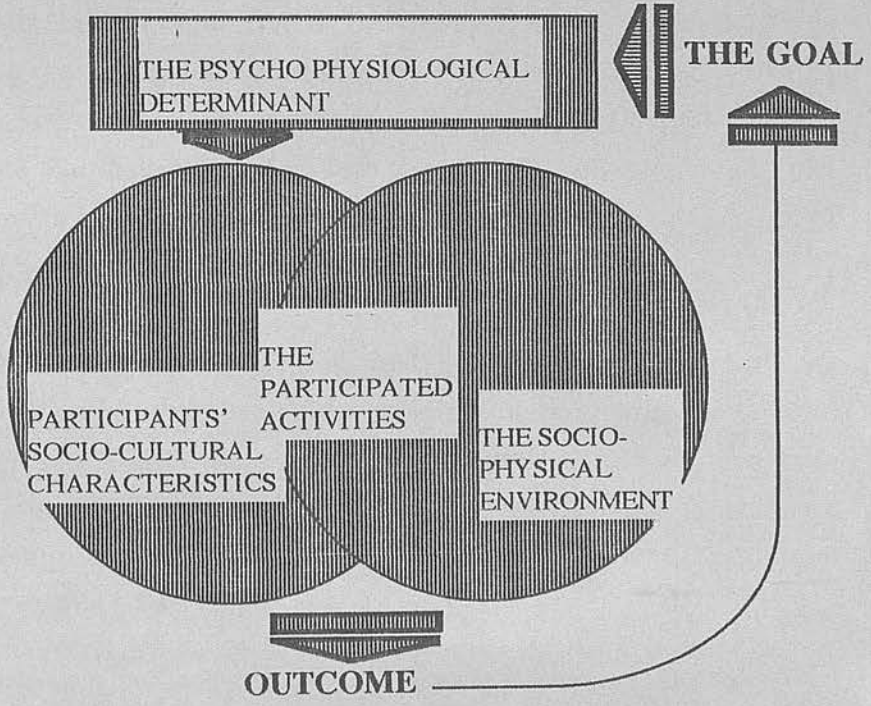
The third and final part of the research represents the technical component of the study. It demonstrates the applicability of the quantification tools to the paradigm's determinants. In other words, it illustrates the means of using the quantification tools for the evaluation and understanding of the spatial recreation behaviour in open spaces in terms of the paradigm's determinants. Both the understanding of the explanatory determinant and the evaluation of the descriptive ones will clarify whether the quantification tools are applicable for attaining the paradigm's objective in certain situation in terms of time and space of a particular society.

In achieving the goal of the study, the third part embodies four chapters. Chapter seven "methodological approach", addresses the methods used to analyse the determinants of recreation paradigm analysed in the previous part. Driver's pool will be modified to suit the selected society "Cairo", then used in the questionnaire to quantify the explanatory determinant; the psycho-physiological. Through observation, behaviour setting survey will be represented in order to analyse the three descriptive determinants; participants socio-cultural characteristics, the socio-physical environment and the participated activities. Both methods will be applied through chapter eight and nine in the research.

Chapter eight; "behaviour setting application to case study", represents the application of behaviour setting survey thought the observation to three case studies, where a set of descriptive factors is to be concluded. Chapter nine, "questionnaire analysis and findings", is directed to the analysis of the questionnaire through applying factor analysis technique to the modified Driver pool scale of motivations. The chapter will end by the quantification of the psycho-physiological determinant in the selected case study.

The final chapter will address the means of bridging the gap between the explanatory and descriptive approach in designing open spaces for recreation. This will in turn equip landscape designers for the evaluation of an existing situation and the understanding of the spatial recreation behaviour in open spaces. Moreover, from the outcomes of the previous two chapters, design guide lines for a selected sample in "Cairo" will be provided.

CHAPTER SEVEN:
7. PROCEDURES OF OBSERVATION AND QUESTIONNAIRE SURVEY



THE RECREATION PARADIGM

CHAPTER SEVEN

7. PROCEDURES OF OBSERVATION AND QUESTIONNAIRE SURVEY

Chapter seven addresses the methods used in analysis. First, however, the process by which behaviour settings in the three case studies was determined is explained where the three descriptive determinants of the paradigm will be analysed. Then quantification of the explanatory determinant, the psycho-physiological through using a modified version of Driver's pool in the questionnaire. Questionnaire building and sampling is described. Finally, data analysis procedures are discussed.

In Cairo, the selected society, the subject of recreation and its relationship to open spaces design is a largely disregarded subject. A result of this was the lack of information and data in regard to use and need of public recreational open spaces. It is exceedingly important to understand the whole recreation paradigm, deduced theoretically in the previous part, and to apply it to selected sample[1] in Cairo. Hence, a key role in this field study is the investigation of the four determinants of the paradigm represented by; the socio-cultural characteristics of the selected sample in open spaces, their psycho-physiological approach, the socio-physical environment and the outdoor participated activities undertaken. Thus the main objective of the survey research is to collect data and information in order to cover the four determinants with relation to time. In other words, to study the patterns involved in the selected sample's recreational behaviour in the manner they use their time and their interaction with the environment which surround them. In addition, assessment of the degree of satisfaction obtained from such activities will be made.

A strategy should be established to conduct the field study. The strategy largely depends on covering the determinants within the recreation paradigm in relation to the selected sample of the particular society, Cairo. In reviewing the attempts of methods survey in recreation behaviour it has been found that Rutledge's book reflects the typical framework of the design process generally practised by landscape designers or planners at the present

[1] It is to be selected with reference to the variation in the socio-cultural characteristics of: participants, interviewers and respondents, as well as, the locality and its particular socio-physical environment.

time. He recognises the significance of people's needs as the goal of open spaces for recreation (parks) design. Recreation needs and benefits studies are also mentioned, though briefly. He also suggests the demand study as an instrument to gather information through questionnaire and interviews. In his second book, he moves closer to a design-research collaboration. Many examples of how behavioural research findings can guide design features in the park or open space are given. He suggests that designers can conduct behaviour research in the form of case studies and post occupancy evaluations. Behaviour observation was stressed as the major instrument throughout the book.[1]

A literature review also indicates that many park behaviour studies are done in the form of case studies of recreation places. Whyte conducted a series of case studies using time lapse film to document the use of New York city's plazas and mini parks.[2] His works contributes to many useful design principles such as the importance of providing comfortable suitable places in open spaces. Nager and Wentworth employed behaviour mapping and interviews in a study of Bryant Park in midtown Manhattan.[3] The park was divided into two sub-areas and users were systematically recorded by age, sex, activity engagement, location and physical park features being used. Interviews were conducted to determine the individual's use of the park, reasons for coming to the park, thoughts about changes and improvements in the park, perceptions of safety, frequency of use, place of residence and occupation. The findings generated a set of guidelines for design and improvement of parks.

De Jonge discussed several observations made in parks in the Netherlands within the framework of 'hodology'; the study of concepts dealing with the structure of space as used by humans.[4] The object of the study was to observe behaviour of people using parks and recreation facilities to gain clues for better understanding of spatial behaviour. It was found that areas concentrated with users are areas near the entrance, focal points such as open-air cafes, playgrounds and the tops of hills. An 'Edge Effect', 'Border Zones' or edges between two relatively homogeneous areas such as banks of water had a greater density than the central part of the area. 'Island-effect', features that create an edge effect on all sides such as clumps of trees in the open or flares within woods, also draw people. 'Polarisation', concentration on different ends, was also observed. Some people stayed at the entrance while others wandered off to the distant parts of the park. 'Examining users' characteristics revealed that blue-collar workers were more highly represented near the entrances while white-collar workers tended to wander into more distant areas.

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[1] Rutledge, A. J. (1985) *A Visual Approach to Park Design,* John Wiley and Sons, Inc., New York.
[2] Whyte, W. H. (1980), *The Social Life of Small Urban Spaces,* Washington, DC : The Conservation Foundation.
[3] Nager, A. R. and Wentworth W. R. (1976), Urban Park Evaluation, in Friedmann A., Zimcing C. and Zube E., (eds.) Environmental Design Evaluation, New York: Plenum Press pp. 155-165.
[4] De Jonge, D. (1967) Applied Hodology, Landscape, vol. 17, no. 2, pp. 10-11.

Sociability was mentioned as a motive more frequently by people who stayed near the entrance or near busy circulation routes. The wanderers more frequently mentioned an interest in nature as a motive. These findings imply that recreation behaviour in a park or open spaces settings can be predicted and therefore controlled to a certain extent. Similar to De Jonge's work, Lyle conducted a comparative study to determine how people-place patterns vary with geography and cultural context.[1] A number of parks in Los Angeles and Paris were studied by observation and the findings were compared. Many findings similar to those in De Jonge's were mentioned. In addition, it was found that several characteristics of environment emerged as particularly strong attractions to people, but the strongest was human activity. Water was also a major attraction. However, water and playgrounds failed to attract people when they were located in enclosed or obscure locations. Only a small number of people sought truly natural settings and the distant views, however dramatic, drew few observers. Little consistency was found between activity and choice of setting.

From the previous researches and study of the previous part, the strategy seams more clear. Also the lack of information in Cairo in terms of the design process where participants' behaviour was never taken into consideration played an important role in choosing the survey research methods. A set of instruments was developed consisting of four main parts. The first part is a form to record observations of the setting which includes a simplified map of the setting area for the researcher to record setting conditions and to get used to the area. This part included some general interviews with members of the maintenance circuit, as staff and managers and users. The second part is the observation itself, through which observed information is illustrated on both maps and tabled format. The third part is the questionnaire form through which the respondents are asked some questions. Finally analysing both the observation and questionnaire to obtain a full understandable view of the selected sample's recreation experience. In sum the quantification of the four determinants of the recreation paradigm will be achieved through two procedures; the observation of behaviour settings and the questionnaire. Both methods represent very useful tools in collecting behavioural data.

The time and budget of this field study was limited as the main objective is to examine the applicability of the quantification tools to the paradigm's determinant, so time in the context is of minor importance. Conducting any survey, and especially questionnaire and observation by individuals, is usually a long and complicated work. This took place in August 1993 which is the favourite month for Cairenes' outside trips, most of which were taking place in their summer vacation to the North. But as the research is more concerned

[1] Lyle, J. T. (1970), People-Watching in Paris, Landscape Architecture, October, 31, 51-52.

by the lower and lower middle class, and because of economic reasons that did not affect participants' use of such spaces. The survey will be covered following two procedures:

7.1 Observation.

7.2 Questionnaire.

7.1 The Observation:

The activities and actions of people are many and diverse; hence, focusing on special behavioural settings is necessary. In observation some behavioural patterns are clear. They are outstanding and repeat themselves at frequent periods in some defined environments. The observation survey will be carried out through two steps. First is selecting the case study open spaces. Second is the observation of behaviour settings through applying the observation technique using the behaviour setting survey with relation to the descriptive determinants of the recreation paradigm. These two steps will be explained in full through the followings:

7.1.1 Selecting the Case Study

7.1.2 Observation and Behaviour Settings

7.1.1 Selecting the Case Study:

As early mentioned, the aim of the third part of the research is not to question the characteristics and behaviour of Egyptians generally[1], but to demonstrate the applicability of the quantification tools to the recreation paradigm's determinants[2]. Accordingly, a selection of any three cases in Cairo at any periods of observation is accepted in the context of such objective; i.e. the applicability of the quantification tools to the recreation paradigm's determinant. The criteria of selection will, therefore, be based on the diversity of such determinants. Three main open spaces are thus chosen; Al Hadeeka Al Dawlia, Hadeekat Al Hod El Marsoud and Hadeekat Al Azbakyia.

Al Hadeeka Al Dawlia (The national Garden) is situated in Nasr City, a relatively new residential district in Cairo. This it represents one of the lately designed open spaces for recreation in Cairo widely used by all Cairenes sectors and reflecting the recent dominant approach of open space design. In terms of the socio-cultural characteristics of participants, Al Hadika El Dawlia is visited by all life-cycle stages and social classes. Moreover, in terms of the socio-physical environment, provides for the needs of most social group. It does not only serve Nasr city district, but also most other districts in Cairo, being accessible through a wide transportation net work. Finally in terms of the participated recreation activities its design supports and facilitates most categories of recreation activities.

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[1] See chapter three , participants' socio-cultural characteristics, page 44

[2] See the introduction of the third part, page 164.

The second case is Hadeekat Al Hod AL Marsoud, known as a cultural garden in Al Sayyida Zayinab, one of the oldest residential districts in Cairo. In terms of the socio-cultural characteristics of participants, it is oriented towards serving the first stage of life-cycle of the district who are classified as low and low-middle class. All social groups participate in the garden. It is mainly accessible by the inhabitants of Al Sayyida Zayinab district. The garden represents an example of open spaces for recreation which are devoted to specific type of recreation activities (cognitive) although other categories are minimally participated.

Finally the Azbakyia Garden represents one of the oldest gardens representing a design concept based on western genesis.[1] The garden serves the commercial centre of Cairo, one of the most westernised urban districts. Although most social classes attend this garden, the lower and lower middle represent the dominant participants. Participants are either workers or customers of the lower or lower-middle commercial sector of the city centre. The garden is opened for most life-cycle stages. In terms of the socio-physical environment all social groups are allowed to participate in the garden. Participants are residents of different districts of Cairo, being directly accessible by a most public transportation line.[2] No facilities are provided to promote various recreation activities. In addition to the diversity between the three case studies with relation to the recreation paradigm determinants, other differences should be noted; entrance obligations, the maintenance circuit, and size of each case study.

In order to prepare plans to these open spaces, a visit to the maps and survey authority to gather information, and specially maps, will be carried out. Every site will be studied through two scales: first the macro scale represented by the garden, while the second is the micro-scale which results from dividing the macro into small localities of spatial and temporal units as settings. In order to achieve this, first the whole site will be analysed. Some points will be recorded about factors that may influence the use of that open space, i.e. location, land use, design and maintenance. Subsequently, the garden will be divided to sub-areas and further more, each sub-area will be subdivided into settings. Every garden has its own concept of division. To conduct such thorough analysis over a cycle of time, will contain numerous behaviour settings.

During the field observation, photography from close range will be prevented, in order to avoid any change in behaviour. So, beside distant photography, data will be recorded on pre-prepared maps for the site to be observed. Tables will be instructed in order to cover all the points needed to be fulfilled.[3]

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[1] see chapter three for a historical background of Al Azbakyia garden.
[2] An underground network is being constructed to serve the area.
[3] See appendix (A) for the model of the observation form.

7.1.2 On-Site Observation and Behaviour Settings:

Observation is one of the methods of learning about behaviour patterns, where the designer sits down and make a sketch of the setting that is observed and then annotates the sketch to indicate how the users behave within space.

Behaviour settings as described in the previous chapter are small localities limited in time and space, within which there is some behavioural pattern of determined action, interacting with some particular physical setting and social objects. To work in a sufficient way, these settings have two types of circuits; the maintenance and operating, which affect their life time span. Further more they include tools and equipment to facilitate their function. Theoretically the survey of behaviour settings consists of mainly three steps; the first is scouting and mapping, second is recording and describing, and finally third is analysing and reporting.[1] The scouting phase relies on all sources of information available such as interviews, reviews of maps, aerial photos and other relevant documents. The purpose of this step is for the researcher to familiarise himself and understand the area, community or organisation to be surveyed and its structure. This step should result a list of potential behaviour settings. Observation and mapping of behaviour is the major tool in the second step. In Barker's work, the survey is administered over a one year period to capture all seasonal variations. Data are collected for each behaviour setting on frequency, duration, population, occupancy time. Signs and posted noticed are of particular help and bulletin boards of all kinds are there to be mind. The public settings advertise themselves and the pedestrian observer will typically come from the field with a filled notebook.

Although each case study has its own concept of design, the division of settings represents the fist step of analysis. While common sense can easily identify most behaviour settings in some situations, it is difficult to tell them apart. A scale, so called K-21, was developed to measure these attributes so that the question of how to tell whether two behaviour settings are actually separated or constitute a single setting can be answered. The followings are rated on the scale: population, spatial, behaviour objects, molar action units (continuity of behaviour from one setting into the other) temporal contiguity (degree to which setting A and B occur at the same time or nearly the same time and similarity of behaviour mechanisms; bodily tasks). The scale consists of seven sub-scales that are added together. Scores are assigned to rating and the total score for each setting is computed. If the sum is 21 or more, the behaviour settings are considered separate settings. If below 21, they are seemed too interdependent to be separate, and score between 18 and 23 are to indicate boundary problems.

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[1] op cit., As, D. (1975).

Recording information of observation should be illustrated on a code sheet which demonstrates a method of recording data on each behaviour setting for analysis. Observation of behaviour which covers; changes of seasons, special events and occasions, weekends, weekdays and day hours is considered a huge and hefty work which requires more than one man's job. In open spaces, changes of seasons largely affect participants behaviour, which in turn define their daily behaviour. On the other hand, events and occasions are considered an exception in open spaces except for special ones which are more devoted to the occasion taking place, i.e. festival squares. Through the observation of each behaviour setting frequency, duration, population and occupancy time within the limited period of observation will be collected.

Moreover, and as early mentioned, the research objective is to examine the applicability of the quantification tools to the recreation paradigm's determinants, hence, the zone of the time of observation has a minor role in the case study. The outcomes of the analysis, therefore, will be only valid to the particular time of observation and is not to be taken generally.

On site, the data collected of this part is divided into two main parts. The first is aimed at determining the behaviour setting in the three open spaces. These behaviour settings will then be used as units to be analysed in the second part which relates and analyses the three descriptive determinants of the recreation paradigm; participants' socio-cultural characteristics and the participated activities. Nevertheless, the steps taken here will be sufficient for the researcher to understand the structure of the system and to identify the potential behavioural settings to be used in the observation of both behaviour and the physical features of the setting relies mostly of the sensitivity to users' derived recreational reasons. The steps followed in the behaviour settings will be achieved as follows:

7.1.2.1 Identifying behaviour settings.

7.1.2.2 The survey of behaviour settings.

7.1.2.1 Identifying behaviour settings:

The information obtained from these observations will be reviewed with the intention of analysing and evaluating the three descriptive determinants of the paradigm. Behaviour settings in this research will be used only as a unit of analysis and not to be obtaining detailed computation. The K 21 will be used in addition to common sense to judge the separation of behaviour setting with flexible or overlapping boundaries allowed. A list of potential settings will be prepared and notes of activities will be collected in each case study. A final set of behaviour setting in the three cases will be then defined. The determined behaviour setting in each one with a brief description of each will be listed according to the situation and physical characteristics of each case.

7.1.2.2 The survey of behaviour settings:

This stage of data collection will be carried out during a month period of study. The purpose of this stage is to familiarise the researcher with these open spaces and their activities so that the structure of the system could be understood. The final product is a list of potential behaviour settings in the three open spaces.

The researcher will examine all areas, maps and sites of the cases and will spend time observing the activities in these places. Unstructured interviews with park officials and superintendents will be conducted, when and where possible, to obtain their perceptions about the uses of 'hadaek' in general.

Information obtained from this task will then be used to plan and conduct the observation of the activities and users. Maps of the three cases will be constructed and used to record data. A systematic observation is planned during the four week period. Observations will be scheduled to sample different times of the day. For each observation period the observer will stay unobtrusively at the designated area of the park, observing and noting the behaviour in the area on the map. Each user group within the area will be represented by a cross at the corresponding location on the map which is accompanied by a designated number of the group. For each group, the observer will describe and record such information as, the number of members in group, activities, facilities used, social aspect of the group, presence of interaction within and between groups and intensity level of the participation.[1] Movements of the group members from place to place will be also recorded on the map whenever possible. This information will provide in sight into the nature of their recreation activities. A number of informal interviews will be also conducted as the situation will allow. Users who will be interviewed will be asked about their opinion about the open spaces and the reason they chose for visit. This information will be also used in the questionnaire building stage and will largely help in deducing the explanatory determinant. Besides, through the observation of settings, behaviour traces will be noticed. These traces offer clues to transpired events and specially during low-use or non-use times of the settings.

In sum and followed by the second part, general points have to be emphasised in relation to the determinants of the recreation paradigm[2]:

a) Participants' socio-cultural characteristics:

According to past research, it has been found that the differences in the user's background characteristics, may also account for the variations in experiences sought by

[1] See Appendix (A) for observation tables.
[2] See chapter two for the determinants of the recreation paradigm.

users.[1] These possible intervening factors are: the size of the group, the number of children in the group, the social aspects of the group, the users' demographic characteristics, such as age, and sex.

This approach focuses on the human aspects of life-cycle stages, families, sex, and social class categories. Life-cycle stages' categories will be classified according to chapter three as childhood, adolescence or teenagers, adulthood and old age. Differences in sex will be also allocated, while the prediction of social class differences will be difficult by observation, but will be concluded later through the questionnaire.

The number of groups according to their sizes (individual, small group = 2-4 persons, medium group = 5-12 person and large group> 12 persons) will be recorded. Information regarding locations of the respondents within the setting can be extracted from the map later. In this part, it will be also important to record the date, the time of day, weather conditions and the researcher's own comments on the conditions of the settings and other observations.

b) The socio-physical environment:

The environment is concerned with the socio-physical elements. The social through the presence and number of persons grouped by their type of social group in various locations in the setting. Social groups in the observation will be classified according to chapter five as: family groups categorises respondents who are members of nuclear family groups (husband, wife and children), extended family groups (husband, wife, children and other relations) and single parent family groups (divorced or widowed but with children); friendship groups which consist of a group of individuals participating on site with others of same or opposite sex; and the family/friendship group categorisation which consist of any possible combination of family and friendship. This part will be further supported through the questionnaire.

On the other hand, the physical factors will be deduced from the climate, topography, division of areas and types of landscape elements and location within the settings. The environmental quality of the settings will be observed through the selection of types and location of landscape elements. Judgements will be elicited on whether these elements support the socio-physical interaction. The socio-physical environment relation will be observed through the behaviour setting synomorphy. The synomorphy classifies the landscape elements into tools and equipment. Landscape tools refer to objects which facilitate or prevent social exchange, presented by seats. Landscape equipment refers to other landscape elements as plants, lighting objects, signing posts and steps.

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[1] See chapter three for the demographic characteristics of Cairenes, representing the first dimension of the recreation paradigm, page.

The interaction observation technique is most frequently employed in conjunction with observation to provide a more complete picture of how certain activities occur in a social context. Interaction observation indicates types of groups and individuals, their life-style, and to what limit is the interaction process success, a negative or positive people scape.

c) The participated activities:

This is devoted to the types of recreational participated activities in the physical hierarchical forms; zone area and settings, through forms of activities, patterns and activity packages. Activity observation is a straightforward recording of what people do in a space. The important factors to record are the various kinds of activities and the different people, according to age and sex, who are doing these activities. The stress will not be only on the single activity but also the package as a whole. The participated activities will be further fulfilled through the questionnaire. These participated activities will be further related to the mental activities through the satisfaction achieved and expected.

d) Time:

As mentioned in chapter six, the research is more devoted to the third phase of time (on site). In addition, through the questionnaire, the second phase will be dealt with. The third phase of time is limited in the case study as the objective of the third part of the research is to examine the applicability of the quantification tools to the recreation paradigm's determinants and not capturing various recreation behaviour in open spaces through different periods of time. A wide zone of observation time requires a huge and hefty job which in turn requires numerous well trained observers. Such task could be achieved, in the design of open spaces for recreation within the Cairenes context in general, through specialised organisation and research centres and not a one man's job. Moreover, because of the research objective[1] any particular time of observation will achieve the aim. The observation will take place in summer as it is the seasons of holidays and outings. Through the times of observation it happened that Mulled Al Nabi was celebrated through the researchers visit and observations were noted at the time. Moreover, a general picture will be achieved from general observation but not related to behaviour setting application. The outcomes of the analysis are only valid to the particular period of observation and not to be taken generally.

e) The psychophysiology of recreation:

The explanatory determinant will be covered through applying Driver's pool for scales of needs and motivation for recreation. The method has to be modified to suit the selected society.

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[1] See introduction of third part, page 164.

It is not surprising that observation is the main instrument used in the study of recreational behaviour because most practitioners are interested in how people behave in and use the designed environment. Therefore understanding and being able to predict the spatial distribution of people can be applied directly to the design process. However using observation alone has some limitations. As discussed in chapter four, psychological determinants such as needs, motivations and expected consequence or experience preference explain why people participate in recreation behaviour. These variables can not be detected by observation alone, because at a given time, people may do the same thing for different reasons. Finally, an advantage of the case study approach is that it has allowed direct application of the findings to improve a specific site. In order to attain a full analysis of the four determinants of the recreation paradigm for the selected sample and as behaviour settings survey is only directed to analyse the descriptive determinants, a questionnaire has been distributed for the analysis of the explanatory determinant. The building up of the questionnaire was controlled by covering the theoretical parts abandoned in the observation and mentioned in the theoretical section of the second part of the research.

7.2 Off Site - The Questionnaire:

(Measuring the psycho-physiological determinant of the recreational paradigm)

The questionnaire is the most common means used to try and find what people want. Questionnaires can only deal with people's reactions to what they are already familiar with. People can describe their reaction to what already exists, but are less good at describing what they would like in the future. All people can respond to questions about facilities and environments within the limits of their own experiences, whether these experiences are direct (that is the person involved has physically experienced the activity, facility of setting and so is able to report a reaction) or indirect (that is experienced only at second hand through the media of hearsay).

Measuring recreation from the psychological point of view is the second step in the data collection. This step will be carried out using a conventional questionnaire format. This section explains the steps carried out in this data collection stage. Before writing the questionnaire, interviews with both "circuits" will be allocated whenever possible.[1] Also using some data collected from the observation will be very useful in the building up of the questionnaire. The questionnaire will be studied through the following points:

7.2.1 Building the questionnaire.

7.2.2 Analysing the questionnaire.

[1] See chapter six for behaviour settings' circuits.

7.2.1 Building the Questionnaire:

As mentioned earlier, the questionnaire represents a main data source, through which the psycho-physiological determinant will be quantified. Given answers are related to the questions illustrated, either in the form of direct choices which the respondents have the choice to tick the appropriate answer, or scaled answers from 0 to 10 where the users have to circle their degree of choice and satisfaction. Within the former the respondent will be given the free choice of his opinion to specify other answers that could have been omitted.

The questionnaire is divided into five divisions, each is devoted to cover a particular range of information. Through the first division, personal details and socio-cultural characteristics of respondent, as age, sex, number of individuals in family, education, income and type of transportation owned are covered. This division with the observation aim to cover the socio-cultural characteristics of participants.

The second division deals with locality, neighbourhood, type of residence, people's evaluation of their locality, type of recreational open space, their proximity and how often people use them. It also deals with the pattern of recreation, places that people usually like to visit and the frequency of their visit. All questions are escorted with direct answers where the respondent is instructed to choose the appropriate one. Free choice of different answers is also illustrated in each question. This division aims to collect some information about the neighbourhood of the users, recreation facilities and the frequency of use by individual, families and friends group.

The third division focuses on available activities and the ones required by respondents. Users' opinion of the quality of such open spaces in terms of noise, crowed, safety, and location was asked through a scaled question from 0 to 10, (0= negative quality as crowed and noise and 10= the positive quality of open spaces as safety and near). Also the lacking facilities in such neighbourhood open spaces that needs to be supported where the respondent has to choose from eight facilities a maximum of three will be also recorded. Moreover, respondents will be asked about the majority of participated activities in open spaces in general where a choice of seven outdoor activities are illustrated from which they have to choose a maximum of three. The third division ends with two general questions about the favourite place and things participants like to do in their free time. In conclusion, it is devoted to illustrate the activities' determinant in the recreation paradigm.

The three case studies will be mentioned in the fourth division. This division is devoted towards collecting some opinions addressing some facts about the use of the case study open spaces and the performance of the activities. Respondents have to choose one of the three case studies which they prefer. Time of the stay in sites is asked and the majority of

activities in which they participate. Each respondent is instructed to choose the three activities from a list of nine activities with which he or she are most familiar and to complete the next question with respondent to these particular activities. Following this is a part that aims to relate these activities to the degree of satisfaction. Such degrees will be deduced from Maslow's theory mentioned in chapter four. In relating such needs and motivations to activities it will be possible to determine the importance of each need factor for each activity factor as well as identifying individual differences. For example one group of individuals might see a family relation factor as attributing to the health and well being whereas another group of individuals might see this factor as fulfilling social needs. Finally the fourth division covers the sufficiency of the maintenance circuit of the whole open space through asking a scaled question from 0 to 10 about the adequacy of facilities, staff courteousness and helpfulness, appearance in general and safety of the open space. Mainly, this division aims to examine Maslow's hierarchy of needs within the Cairenes' context in terms of recreation. Moreover, the proper satisfaction with relation to the participated activities will be also conducted.

The final division investigates the psycho-physiological determinant, through using the modification of Drivers' table and Crandall's notes and tools, deduced in chapter three. These tables were developed for the purpose of quantifying the psychological products of recreation participation. At this stage, the recreation motivations are considered the key outcome measures. The procedures used to measure these motivations are borrowed from the widely used standardised scale developed by Driver.[1] In brief, the respondent is provided a collection of statements representing various domains of recreation motivations. He or she is instructed to rate each of the statements on how important the type of motivation represented by statement is to his/her participation in the activity in the Hadeeka.[2] The scale which is used in the study is in a format with; 1= not at all important, 2= not very important, 3= somewhat important, 4= very important and 5= most important.

Most of the statements' are selected from Driver's scale. A few are added for this particular type of environment. Driver's pool is then modified[3] taking into account the major characteristics of Cairenes deduced from the theoretical study of the previous part. Recognising that this scale is a result of studies where the samples are limited to back country and wilderness participants, precautions are taken to select from only the domains considered the most relevant to the type of activities commonly participated in urban open spaces for recreation. Knowledge from informal interviews with the users during the

[1] See chapter four handling the psychological dimension of recreation in the recreation paradigm, page.
[2] Through chapter four, the statements of Driver's pool have been re-constructed according to both; the scope of the research and Cairenes' psychological needs discussed previously in chapters three and four.
[3] See appendix (B) page 383 for the modification scales of Driver's pool.

initial observations and the input from the case officials are taken into consideration. Some examples of the domains and statements which are used in this study ; [doing things with my friends, getting exercise, being a good experience for the family, being at a place where I can make my own decision, seeing new faces, being close to nature, learning about nature, relaxing physically, changing from my daily routine, getting away from the heat]. Additional statements which are not in Driver's scale were: The children enjoy their time, More space for my kids, My kids could play with other kids. In conclusion, Driver's original scales and the additional scales of motivation added within the research represent a new modified pool that could be expanded if applied to other societies with different culture [1].

In sum the questionnaire through its five divisions aims to cover participants' socio-cultural characteristics (division 1 and 3), beside the socio-physical dimensions of both their neighbourhoods' open spaces (division 3) and the case studies' open spaces (division 4), with relation to the participated activities. Finally, and most of all it mainly aims to both examine Maslow's theory of needs for the selected sample, in terms of recreation and to quantify the psycho-physiological determinant of their participation (division 5). The questionnaire is written in English[2] then translated into Arabic. A sum of 250 copies are distributed on a section of Cairenes. Respondents will be chosen as much as could it be from the lower and the lower middle class of Cairenes through identifying the job and neighbourhood of respondents. Blue-collar Cairenes will be first identified and will have the priority of answering the questionnaire and also neighbourhoods will be selected according to Abu-Lughod division, mentioned in chapter five. Moreover, residents of the neighbourhood of the case studies' open spaces will have the chance of answering part of the sum of respondents.

7.2.2 Analysis of the Questionnaire:

The purposes of compiling the information is deduced from the questionnaire into a form whereby interpretations were utilised. The 'systat 5' (1990), which is a general computer program for statistics, Chi-square and factor analysis technique will be selected, in order to obtain frequency percentage of response distributions. Each question in the questionnaire will be coded and results will be tabulated individually so the accurate representations could be made and evaluated. Correlation of variables will be made primarily of percentage distributions.

The analysis can be divided into three major parts. The first is mainly the general description, that provides understanding of the characteristics of the respondents and their

[1] See appendix (C) page 384 for the sum of motivations according to Driver's pool and additional scales of the research.
[2] See Appendix (B) for the English copy of the questionnaire.

communities. These will be covered through their evaluation of the open spaces in terms of the participated activities, motivations and maintenance. This part will rely on percentage distribution and through analysing the data in general, by case study and by community. The frequency of respondents' various characteristics, i.e. age, sex and marital status will be tabulated and compared between case studies and communities. To see if there is differences between respondents, characteristics and attitudes in the different gardens, Chi-square statistics and t-Test will be used.

The second part of the analysis is the multi-varate analysis of the psycho-physiological reason for participation of the respondents' data (the fifth division of the questionnaire). The data reduction technique will be applied to this part rating data in order to examine the relationships between various dimensions of determinants. Accordingly, the responses to the Driver's set of questions (the fifth division of the questionnaire) were subject to factor analysis. This is a statistical technique which examines patterns of relationship in a set of data. For example, if the responses to two questions have been given in a similar ordered way the questions are said to be correlated, i.e. low scores on one question are associated with low scores on a second question and vice versa. Consequently, therefore what is measured by one question is shared and also measured by the second question. When two questions measure separate things, they are said to be non-correlated or independent. In factor analysis every question in the set is compared with every other question in the set, and an initial table of inter-correlation is produced. The factor analytic technique procedure then acts as a data reduction technique. Clusters of similar inter-correlated questions are identified into a new similar set of independent groups from the patterns of inter relationships in the aspired data. The new groups (a principal component) are independent of one another. In summary, therefore factor analysis indicates which of the original questions share something a common and which are independent of each other.

Finally to explore the relationship between the psycho-physiological reasons of participation and the respondents' socio-cultural characteristics and behaviour, the t-Test will be used in order to have correlation between participated activities and the most important factors deduced form the data reduction technique.

Summary:

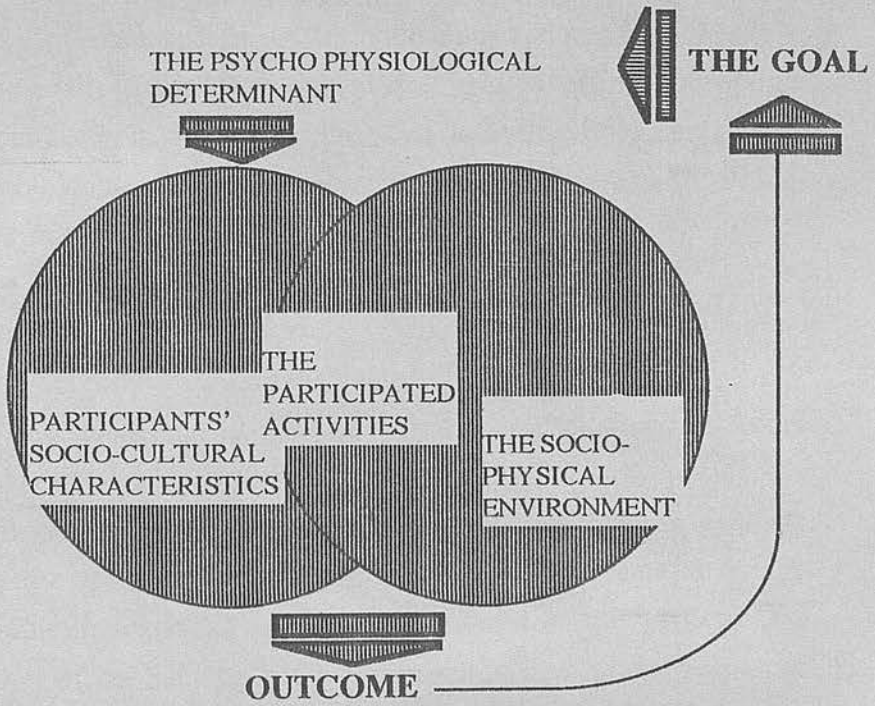
Selecting the methods of analysis in the eariier chapter, this chapter describes the techniques and methods used in data collection and analysis. Two methods are used;observation and questionnaire. Each uses particular technique for data analysis. The selection of both methods is strongly influenced by the four determinants of the recreation paradigm.

The observation will be achieved through applying the behaviour setting survey. As mentioned in chapter six, the survey aims to measure the three descriptive determinants of the recreation paradigm; participants' socio-cultural characteristics, the socio-physical environment and the participated activities. Through observation and informal interviews, a number of behaviour settings will be identified in each case study. Each setting will be analysed through the observation method to deduce and measure the three previously addressed determinants. The sum of the data collected in the settings justifies the case study's three determinants at the particular period of observation.

The questionnaire, aims to quantify the explanatory determinant; the psycho-physiological reason of participation for the examined sample. A conventional questionnaire format will be carried out. The data of the determinant will be collected through examining Maslow's motivation for the hierarchy of needs. In addition Driver's pool of scales of motivations is then modified with reference to Cairenes in order to be applied to the case study. Factor analysis is the selected technique for data reduction, through which the determinant will be quantified.

The outcomes of the application of the quantification tools to the recreation paradigm's determinants, through the case study, are only valid to the particular situation and not generally, i.e. the specific time of observation does not cover changes of seasons, various occasions and celebrations, weekends, weekdays and day hours. Accordingly, the outcome of the forthcoming analysis is not valid for the examined sample broadly but within the particular period of observation. The following two chapters address the data collected, analysis taking place and findings of such study.

CHAPTER EIGHT:
8. APPLICATION OF THE BEHAVIOUR SETTING'S OBSERVATION



THE RECREATION PARADIGM

CHAPTER EIGHT

8. CASE STUDY OBSERVATION

This chapter presents the survey work of observation for the three sites of the case studies. In general, the observation, as mentioned earlier in the previous chapter, will cover the three determinants of the recreation paradigm presented by the people, environment and the participated activities in time. This will be through the application of behaviour settings on the recreation paradigm addressed in the second part of the research . Through chapter eight, each of the three cases will be divided into areas which will be further divided into settings. The study of such case studies will be achieved through covering the three determinants of the recreation process in the three following scales; first starting by the general, describing every case study's neighbourhood and its residence. Following is the site itself through the location and history of garden. Finally is the analysis of the case study through the use, concept of design and subdivided areas where behaviour settings occur. This will be achieved as follows:

8.1 Case Study I: Hadeekat El Hod El Marsoud (Al Sayyida Zayinab)

8.2 Case Study II: Al Hadeeka Al Dawlia (Nasr City)

8.3 Case Study III: Al Azbakyia

In order to prepare plans to these open spaces, a visit to the maps and survey authority to gather information, and specially maps, was carried out. However, no appropriate detailed maps were found either updated ones or the suitable scale. Base maps, scale 1:5000 being the only suitable ones. These maps were enlarged and used as base plans for the sites. Details in each site were recorded through site surveys.

8.1 Case Study I: *Hadeekat El Hod El Marsoud* (The Cultural Park of Children)

El- Sayyida Zayinab Quarter

The first case study is "Hadeekat El Hod El Marsoud". Prof. Ibrahim Abdel Halim is the designer and the main concept of the design was to respect and consider the depth of history for such quarter. This case study will be investigated through deducing the three determinants of the recreation paradigm; the people (represented by the residence of El Sayyida Zayinab quarter and the participants of the garden), the environment (both the quarter of the Sayyida Zayinab community and the participant of

the garden) and finally the activities (represented by the participated activities in the garden). These three determinants will be studied as follows:

8.1.1 The socio-physical dimension (the environment).

8.1.2 The socio-economic determinant (the people).

8.1.3 The activity dimension (the participated activity).

8.1.1 THE SOCIO-PHYSICAL ENVIRONMENT:

8.1.1.1 The Quarter:

The Cultural Park of Children is situated within the old community of Al-Sayyida-Zayinab, in the heart of Medieval Cairo, [figure (8.1)]. The quarter is named after Al Sayyida Zayinab, the granddaughter of the Prophet Mohammed (PBUH). The mosques of Ibn Toulon and Sayyida Zayinab are among the many great buildings from various periods that embody in their form some of the power, vitality and meaning of the community's life there. The quarter in general represents a rich part of Islamic treasured structures.

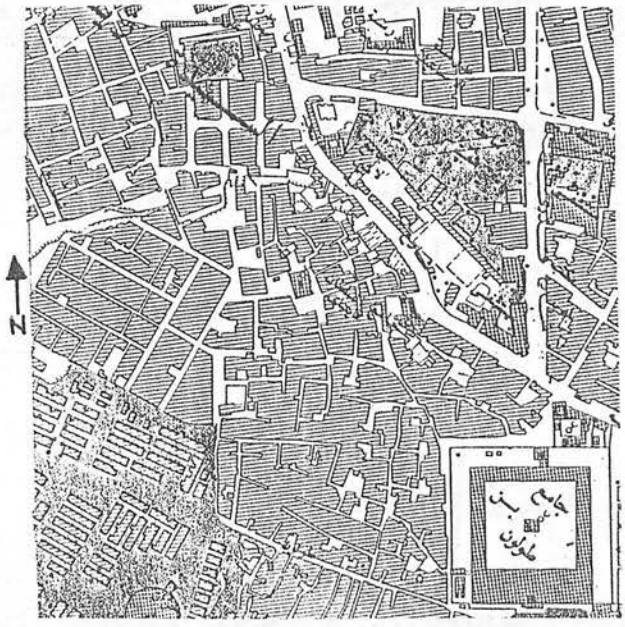


Fig. (8.1) The garden's location within Al Sayyida Zayinab quarter.

8.1.1.2 The Site:

The garden is sited over an older Hadeeka called El-Hod El-Marsoud, which had occupied the site in the late nineteenth century. Previously the location of Birkat El-Fil, in the Mamluk period, this whole area once covered by an artificial lake surrounded by large houses during the middle ages, and was one of the wealthiest parts of Old Cairo.

El-Hadeeka is surrounded by two main boundaries Abu-El-Dahab street, which is a continuation of El-Hod El-Marsoud street on the north, the latter is a very historically significant thoroughfare. The second boundary is Kadry street to the east, which is more recent and offers unobstructed views of Ibn Toulon mosque because it is relatively straight, [figure (8.2)].

Fig. (8.2), Ibn Toulon mosque and its relation to the garden

Abu-El-Dahab street consists of several residential blocks with a few institutional and industrial buildings, several government and public buildings surround the site to the east and south. These include a late nineteenth century hospital just opposite the garden, the municipal headquarters for the district and a more recent children's hospital south of the site. Most of the buildings surrounding the site exist in different degrees of dilapidation, despite the fact that the facades of Abu-El-Dahab street and some of the institutional buildings were upgraded in the context of the garden.

8.1.1.3 The Garden:

Spreading over two and a half acres, the garden provides a library, studios, rooms for computer and video games, a book shop, play grounds, fountains and several settings for theoretical and performing arts for this urban community, [figure(8.3)]. The garden is laid in a plethora of complex geometric patterns, some of which are painted in bright colours, to attract the local children.

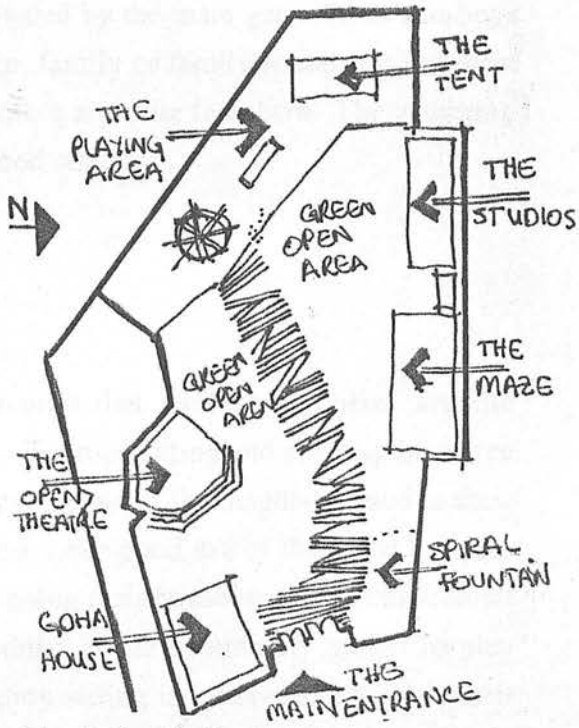


Fig. (8.3), Distribution of structures and uses within the garden.

8.1.2 PEOPLE'S SOCIO-ECONOMIC CHARACTERISTICS:

8.1.2.1 The Quarter:

The residents of this community have more in common than their physical inheritance. Most of them lead a very simple life, and the quarter as a whole is classified as a low-income quarter. Although the residents are classified as low income, the quarter itself represents one of the richest parts in Cairo' history. Sayyida Zayinab quarter is one of the most lively and vibrant quarters in Cairo, but also is considered as the oldest, most densely populated and poorly maintained one. Its population is over a million and it is rich in history. Most families fit in the extended family category, which means they include grandparents, parents and children. Children of Al Sayyida Zayinab quarter attend school, but that does not mean they have to finish their primary education. Parents may be holding a primary certificate or institute.

8.1.2.2 The Garden:

The garden's users are children aged from 6-12 years old, and they are allowed officially to attend the garden from 9 a.m. until 2 p.m. in winter. The official hours in summer are from 9 a.m. to 2 p.m. then from 4 p.m. to 8 p.m. Four visits were made in August 1993. In two of these the garden was closed and no children were allowed in !! One reason was to avoid misusing and messing around from the children, while the staff were preparing for a performance, and another that it was a very hot morning for the staff to do their work. In both days children were crowded by the main gate. Girls and boys are socially grouped in the three forms, friendship, family or family/friendship but most of them lies down the friendship category. Individuals are quite few there. The gathering is either inside the garden or from the neighbourhood streets.

8.1.3 THE ACTIVITY'S DIMENSION:

8.1.3.1 The Quarter:

The interview held in the quarter indicated that passive activities are the preferable type of activity shared between adults. For men sitting and chatting in coffee houses, playing backgammon or watching a football game in the neighbourhood is their favourite. On the other hand, women and children make good use of the *Hara* or street front, women chat and socialise the same time as doing their house work and children sit on pavements or play football or hopscotch. Adults of the community gather to play football in any appropriate open space. Men enjoy sitting in coffee house, with their friends, mainly neighbours. They are engaged in a conversation, playing backgammon, drinking very dark tea or "sheasha" and most of all watching pedestrian and movement by the street.

> "My mother spends most of her evenings talking to her neighbour in there (el-Hara) and I usually play with the other children in front of her. Well my dad spends most of his time if not at work in the coffee house with his friends."
>
> A repeated answer for "What do you and your parents usually do in the evenings?"

8.1.3.2 The Garden and Behaviour Settings:

The main concept of dividing the garden to settings is based on two concepts, both the shape of areas and the K21 concept of behaviour settings theory. First through dividing the garden in a more general way to areas determined by the shape. Second, identifying the behaviour settings system within each area. Such identification was based on the identification of K21 behaviour settings within the garden.[1] The shape of the garden showed that it could be divided into three areas. Two of which are informal, by

[1] See chapter seven for the system of identifying the K12 behaviour settings.

the north and south, while the third is a linear route that separates both areas coming from the east to the west and ends by the playing area at the west edge of the gardem. For further details and to achieve the purpose of observation within the behaviour setting, every area will be divided to settings according to the identification of K21 behaviour settings system. The K21 rating showed that the whole garden could be divided into nine settings. Figure (8.4), shows the divided areas and settings within El Sayyida Zayinab garden. The first is the south area, includes Goha Structure where the library, computer and some indoor activities exist. The second area, by the north, comprises a hard landscape stepped area (a sort of a maze), small galleries (for practising traditional ornamental arts with clay and needle work), beside some services to Abu-El-Dahab street as the book shop. Finally the third area is the main route which starts from the main entrance by the east and ends by the playing area to the west, this includes the three fountains.

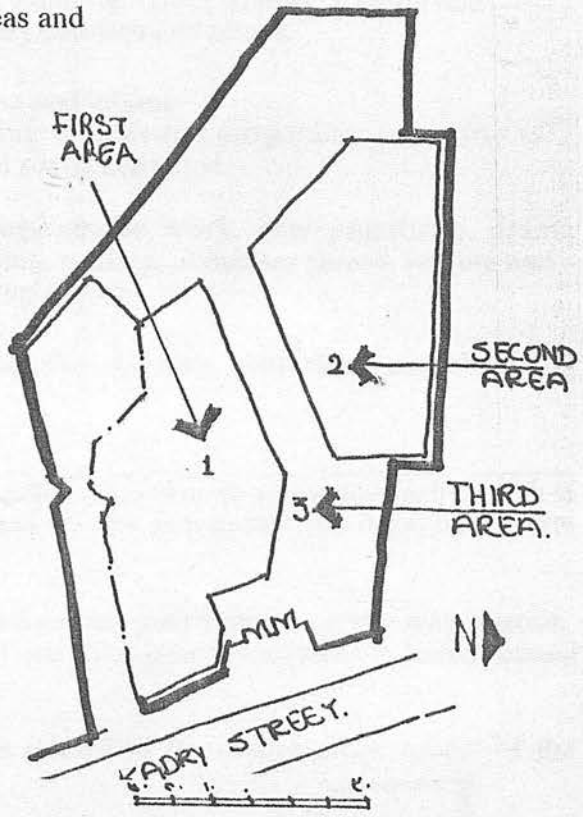


Fig. (8.4), The garden's three main areas.

The three areas will be divided to settings through applying behaviour settings theory. The theory will be related to the categories of activities mentioned in chapter six. Beside the existing types of cognitive indoor activities, as reading, using the computer, playing with clay, drama practising ..etc. there are physical and social activities as using the playing equipment (a marry go round and a slide) beside running, jumping and playing hide and seek in the maze. On the other hand, as the site has no physical environment that afford certain activities, the environment related activities will be replaced by job's related activities. The latter will enhance the investigation which will take place in terms of the maintenance circuit.

Two observational times were chosen in order to capture a diverse range of activities within the garden. It was also anticipated that the density of users would vary at the two times. The first was in the 21st of August from 12.00 p.m. until 3.00 p.m., while the second started at 4.00 p.m. and finished at 7.00 p.m. in the 26th of August. At both times the temperature was high around 38 ^{o}c. Table (8.1) displayes the types of participated activiites in Al Syyida Zayinab garden.

Table (8-1), Types of activities engaged in El Hod El Marsoud Garden

Categories of Activities and Patterns	Activities participated
Physical activities* (Mainly active)	- Running, walking, fun playing, jumping and playing hide and seek. - Sitting, standing, lying, singing, waiting and watching children and others.
Social and related activities** (Mainly passive)	- Shouting and talking - Gathering as activities are participated as part of related social activities.
Cognitive activities (Mainly passive/One way)	- Knitting, needle work, clay practising, drama practising, reading, computer games, singing and watching events.
Job's related activities*** (Mainly passive)	- Teaching the children, controlling and observing them.

* These activities refer to non organised sports that don't require space and facilities. It is worth mentioning that the garden does not embody any spaces that suit organised sports and games.

** The social activities indicate to activities which are participated in a two way relation. Most participants who were engaged in social activities also participated in social related activities (gathering).

*** The job related activities are activities related to the maintenance circuit of the behaviour setting theory.

In the two out of four visits, the following observations for activities related to time and space were deduced:

A) **The First Area: South the Garden**

The three settings of the first area are shown in figure (8.5). All settings are outdoor settings except of SZ1 which is an indoor.

Setting SZ 1

Location: Setting SZ 1 is known as Goha House and is locaated at the east edge of the area, [figure(8.6)]

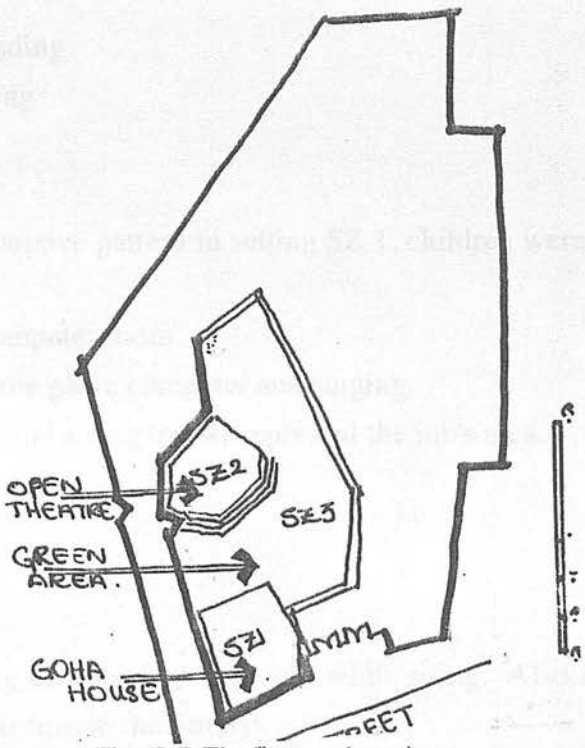


Fig. (8.5) The first area's settings.

landscape elements: The materials used in setting SZ 1 are mainly stones and wood. Setting SZ 1 is an indoor setting which is shaded and sheltered from the climatic factors. A number of books, chairs, tables and five computers were included in the area

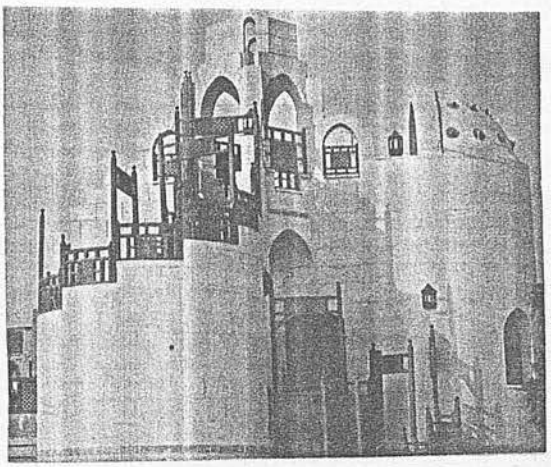


Fig. (8.6), the location of setting SZ 1 in the first area.

Participants' socio-cultural characteristics: About five adults representing the maintenance circuit were working within the setting as the librarian, the computer manager, etc. The rest of the participants are teenagers but mainly children, from 6 to 12 years old.

Date: 21.8.93 **Time:** 12.15 p.m.

Participated Activities:

Forms of participated activities:

Individual: Individual activities were in the form of reading, standing, computer and singing

Intrinsic: small groups were chatting and standing

Group: large groups were chatting and standing

Categories of participated activities:

Physical: all physical activities were in the passive pattern in setting SZ 1, children were either sitting or standing.

Social: some children were chatting in the computer room.

Cognitive: children were reading, playing some game computer and singing.

Job's related: A librarian, computer manager and a sing trainer represent the job's area.

Date: 26.8.93 **Time:** 4.20 p.m.

Participated Activities:

Forms of participated activities:

Individual: individual activities were reading and playing computer while siting. Also a many children were waiting standing for their turn in the library.

Intrinsic: small groups were chatting while standing.

Group: large groups were waiting, chatting, standing and sitting.

Categories of participated activities:

Physical: some children were sitting passively, while others were playing actively hide and seek in the ground floor. Children were using the structure playing hide and seek.

Social: some children were chatting.

Cognitive: In the indoors children were reading and playing computer games.

Job's related: a librarian and a computer manager were in the building.

Charts (8.1) and (8.2) illustrates the relation between the participated activities in setting SZ 1 at both observation times.

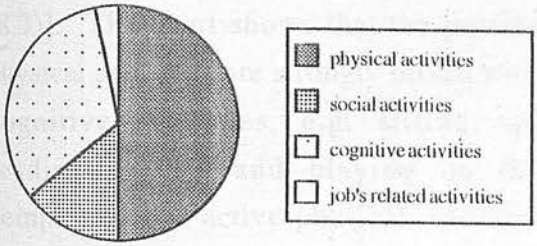


Chart (8.1), Categories of participated activities in setting SZ 1 at the first time of observation

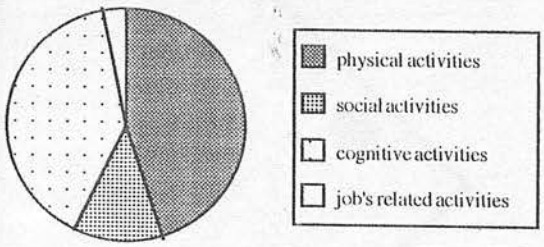


Chart (8.2), Categories of participated activities in setting SZ 1 at the second time of observation.

At both times of observation the activities observed were nearly alike. All categories were participated in both times. Slight differences were between the physical activities and the cognitive activities in both times of observation. The former were more observed at the first time of observation, while the latter were less observed at the first time.

Behaviour setting and the socio-physical aspects: The tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.2) illustrates such relation.

	TOOLS		EQUIPMENT		
	sitting	learning	authentic	ground	functional
PHYSICAL ACTIVITIES:	◔	○	◕	◕	◕
SOCIAL ACTIVITIES:	○	○	○	○	○
COGNITIVE ACTIVITIES:	○	◕	◕	◕	◕
JOB'S RELATED ACTIVITIES:	◕	○	◕	◕	◔

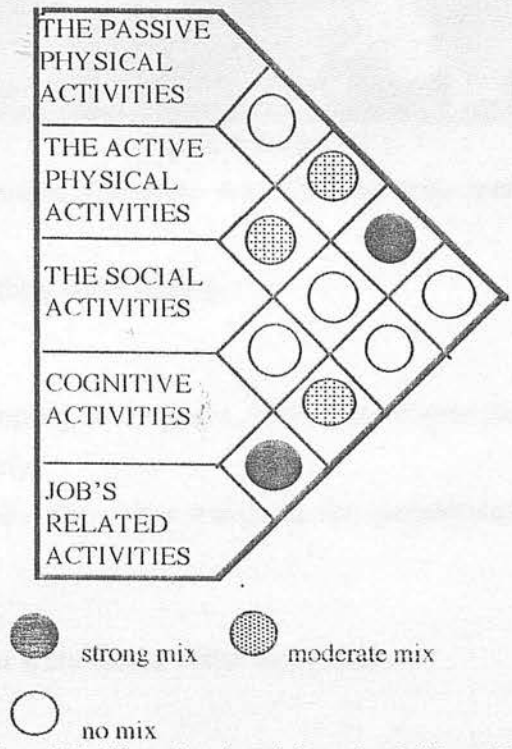
Table (8.2)Behaviour setting synomorphy of SZ 1

○ were not examined ◔ Weak ◕ Moderate ◕ good

Within setting SZ 1 the weakness of the tools is a result of the deficiency in the number of sitting tools with relation to the participants' number, specially in a highly populated area as Al Sayyida Zayinab district. Such deficiency resulted a very long queue by the stairs of the building. Every child was waiting for his or her turn to use the library. It has been noticed that the lights, as equipment, within the library were not sufficient, it nearly depends on natural light. Although it is said that the library is always opened till sun set, so the need for artificial lights is very limited. In a library such concept is not accepted.

The activity mix and package:

Some activities were mixed within groups of participants in setting SZ 1, [see chart (8.3)]. The chart shows that the passive physical activities are strongly mixed with cognitive activities, e.g. sitting and reading, sitting and playing on the computer. The active physical activities observed in the second time of observation was moderately related to some social activities. The social activities were only related to the cognitive and passive physical activities at the first time of observation only in the computer room. The cognitive is strongly mixed with the job's related activities and moderately with the social in the second time of observation.



Chart(8.3), The mix of participated activities within groups of participants, SZ 1.

Within setting SZ 1 the possibility of identifying the main and secondary activities was validated. The setting is an indoor space for cultural activities as the library and computer room. Hence, job's and cognitive activities represent the main ones and the rest characterise the secondary activities.

A-2 Setting SZ 2

location: The second setting is the open theatre is located by the west edge of the first area, [see figure (8.5)].

Landscape elements: The second setting is a stepped theatre where children enjoy their informal behaviour. No vertical objects except for the theatre background. The ground is made of stones and sand, [figure (8.7)].

Participants' socio-cultural characteristics: At the first time of observation there was around six adults at the stage area fixing the audio equipment for the show. Children were scattered by the audience and the stage watching and playing.

Fig. (8.7) Setting SZ 2

Date: 21.8.93 **Time:** 12.35 p.m.

Participated Activities:

Forms of participated activities:

Individual: the only type of individual participated activities was children who were standing watching others.

Intrinsic: small groups were mainly standing, sitting and chatting.

Categories of participated activities:

Physical: Children were actively playing and jumping on the steps, while others were just sitting (on secondary seating) or standing passively.

Social: a number of children were chatting while they were watching the maintenance people working.

Cognitive: no cognitive activities were observed.

Job's related: members of the maintenance circuit were fixing some equipment.

Date: 26.8.93 **Time:** 4.50 p.m.

Participated Activities:

Forms of participated activities:

Individual: children who were alone were sitting and watching.

Intrinsic: adults were working. children in small groups were watching, sitting and chatting.

Group: large groups of children were standing, sitting, chatting and jumping.

Mass: children in very large groups were sitting and watching the try of the act.

Categories of activities:

Physical: Children were standing, sitting passively (on secondary seating) and jumping on the steps actively.

Social: Adults and some children were chatting.

Cognitive: Some children were watching the show.

Job's related activities: A try for the performance was taking place on the stage.

Charts (8.4) and (8.5), illustrates the relation between the categories of participated activities in setting SZ 2 in both times of observation.

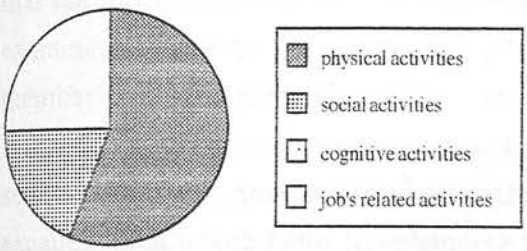


Chart (8.4), Categories of participated activities in setting SZ 2 at the first time of observation

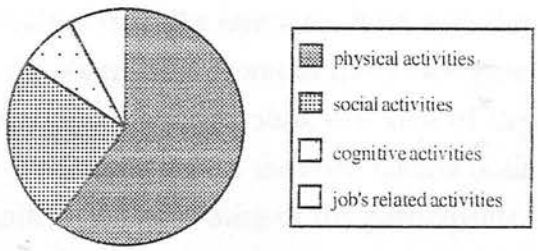


Chart (8.5), Categories of participated activities in setting SZ 2 at the second time of observation.

In terms of the social and physical activities participated, the two times of observation are nearly alike. Differences is noticed only in terms of both the cognitive and job's related activities. The cognitive activities were only observed at the second time of observation. On the other hand, the job's related activities were more participated at the first time of observation than the second.

Behaviour setting and the socio-physical aspects: The tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.3) illustrates such relation.

	TOOLS		EQUIPMENT		
	sitting	learning	authentic	ground	functional
PHYSICAL ACTIVITIES:	●	○	●	●	●
SOCIAL ACTIVITIES:	●	○	○	○	○
COGNITIVE ACTIVITIES:	●	○	◍	◍	◍
JOB'S RELATED ACTIVITIES:	○	○	○	◍	●

Table (8.3)Behaviour setting synomorphy, SZ 2.

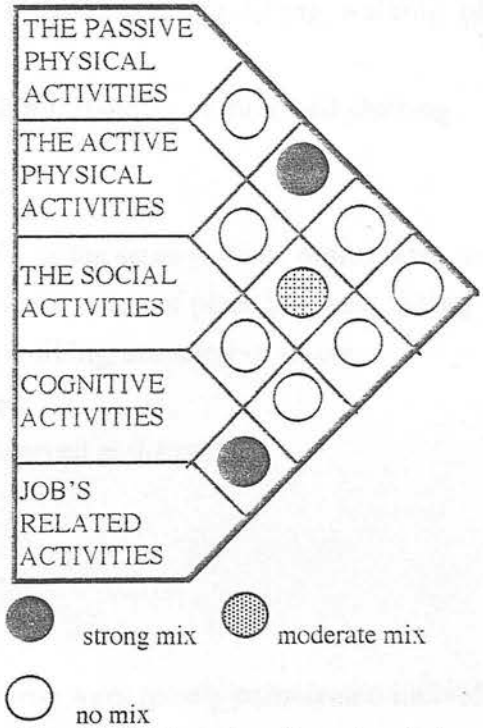
○ were not examined ◍ Weak ● Moderate ● good

The behaviour setting synomorphy was evaluated according to the followings: In the interview held in the garden the person who was responsible of the show complained from the miss-visual aspects in the open theatre. Moreover, the use of stones as a ground material reflected sun rays, the administration spreads sheets of cloth to protect the

children from the hot weather in summer and cold in winter. Using the steps of the open theatre for some physical activities by the children added to the setting a sense of life whenever such setting is not used or the purpose it was planned for. Table (8.4) shows that the tools in setting SZ 2 are considered good although not so much existed to be examined. The weakness in the equipment is resulted from the interview held with the member of the maintenance circuit. Besides, in the observation it was noticed that there is a lack of the natural elements which may result shades in the audience area of the setting, keeping in mind not to obscure the view. The whole idea of the open theatre is an excellent idea which helps in enhancing the cognitive characteristics of the participants, beside it being part of the landscape of the whole garden.

The activity mix and package:

Participated activities in setting SZ 2 are mixed in both times of observation, [see chart (8.6)]. It shows that the passive physical activities are mixed moderately in time and space with the social activities and strongly with the cognitive activities specially in the second time of the observation. The cognitive was strongly mixed with the job's related activities at the second time of observation. The social activities were only related to the passive physical activities. On the other hand the mix between participated activities between groups only happened between the social and both types of physical activities. The cognitive did not mix with any between groups.



Chart(8.6), The mix of participated activities within groups of participants, SZ 2.

In terms of secondary and main activities in setting SZ 2 in both times of observation, it has been noticed that the passive physical activities are secondary ones, while the active physical activities are sometimes main. The social activities are secondary, the cognitive activities are main and the job's related activities are considered main activities.

A-3 Setting SZ 3

Location: The third setting is the open space between settings SZ 1 and SZ 2 in the first area [see figure (8.8)].

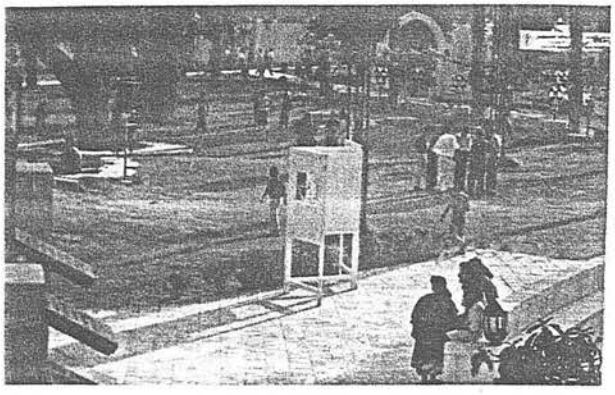


Fig. (8.8), setting SZ 3, the open green space

Landscape elements: The elements used in this setting are grass and immature canopy trees. No vertical elements were observed except for the ones that divide the settings.

Participants' socio-cultural characteristics: Most users of setting SZ 3 are children who were participating in recreation activities. A man from the maintenance circuit was in the setting fixing and mending the lamps. A few members of the administration office were also there.

Date: 21.8.93 **Time:** 12.50 p.m.

Participated Activities:

Forms of activities:

Individual: children who came alone were either walking or standing.

Intrinsic: small groups of participants seemed to enjoy chatting, sitting, walking, playing and standing.

Group: large groups were more involved in talking, standing, sitting, and chatting.

Categories of activities:

Physical: some children were standing passively in the setting, while others were walking or playing actively. They were using the built in structure of plant boxes for sitting.

Social: children were chatting while they were walking, standing or sitting.

Cognitive: no cognitive activities were observed.

Job's related: no job's realted activities were observed at the setting.

Date: 26.8.93 **Time:** 5.10 p.m.

Participated Activities:

Forms of activities:

Individual: Running, standing, watching and sitting were mostly participated individually.

Intrinsic: lying, standing and chatting, were in the form of intrinsic groups.

Group: standing, sitting, chatting, lying, walking, playing and running was participated by large groups.

Categories of activities:

Physical: Children in the second time of observation were standing passively or, running, playing and walking actively. The fixed landscape elements were used by children in their participation of the physical environment.

Social: While they were engaged in the passive physical activities, children were chatting and shouting.

Cognitive: Few children were just lying and thinking, they seemed to be absorbed in their thoughts or watching others.

Job's related: No job's related acitivites were observed at the second time of observation.

Charts (8.7) and (8.8), illustrates the relation between the categories of participated activities in setting SZ 3 in both times of observation.

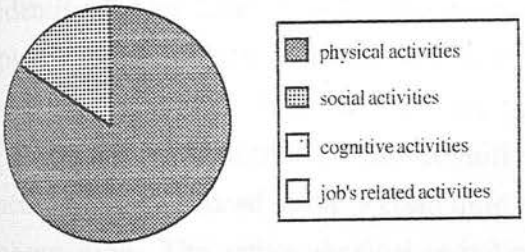


Chart (8.7), Categories of participated activities in setting SZ 3 at the first time of observation

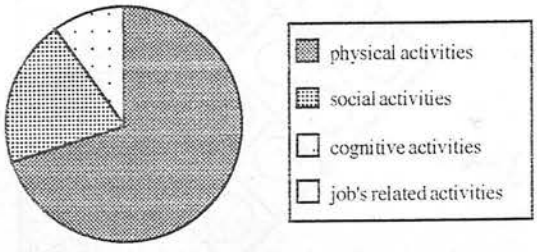


Chart (8.8), Categories of participated activities in setting SZ 3 at the second time of observation.

The above charts shows that the physical activities were more participated at the first time of observation, while the social activities were nearly the same at both times. The cognitive activities existed only at the second time of observation.

Behaviour setting and the socio-physical aspects: The tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.4) illustrates such relation.

	TOOLS		EQUIPMENT		
	sitting	learning	authentic	ground	functional
PHYSICAL ACTIVITIES:	◕	○	◕	◕	◕
SOCIAL ACTIVITIES:	◕	○	◕	◕	○
COGNITIVE ACTIVITIES:	◕	○	○	○	○
JOB'S RELATED ACTIVITIES:	○	○	○	○	○

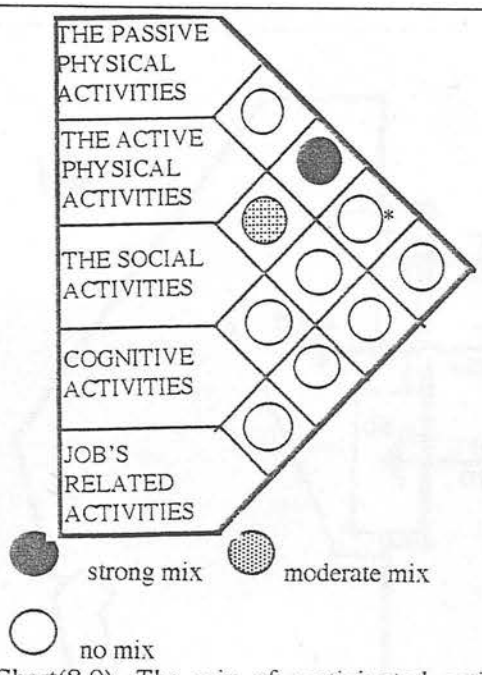
Table (8.4)Behaviour setting synomorphy, SZ 3.

○ were not examined ◔ Weak ◑ Moderate ◕ good

The type of tools within setting SZ 3 are considered good especially the sitting tools which are fixed. Although choosing stone as a material does not suit the children type of movement, it represents a perfect choice in terms of durability. On the other hand equipment in setting SZ3 are considered weak due to the lower height of the lamps which does not suit children's height and type of behaviour. A lot of broken lamps resulted which need continuous maintenance and financial backing.

The activity mix and package:

The mix of activities in time and space of setting SZ 3 within groups could be identified, [see chart (8.9)]. The passive physical activities are mixed with social and job's activities. The mix between the passive physical activities and cognitive activities only existed in the second time of observation. The active physical activities are strongly mixed with job's related activities but moderately with the social. The job's related activities are moderately mixed with the social activities.



Chart(8.9), The mix of participated activities within groups of participants, SZ 3.

Notes of observation within the first zone:

Children are crowded by the library stairs as a result of: The capacity of the library is about eighteen children, which does not suit a quarter like Sayyida Zayinab with its high density [figure (8.9)]. Moreover during the second time of observation, a group of children from Luxor were visiting the garden and specially the library, which made it impossible for the local children to use it, this was very clear from the library staff who had their reasons for not allowing the local children to use their own library.

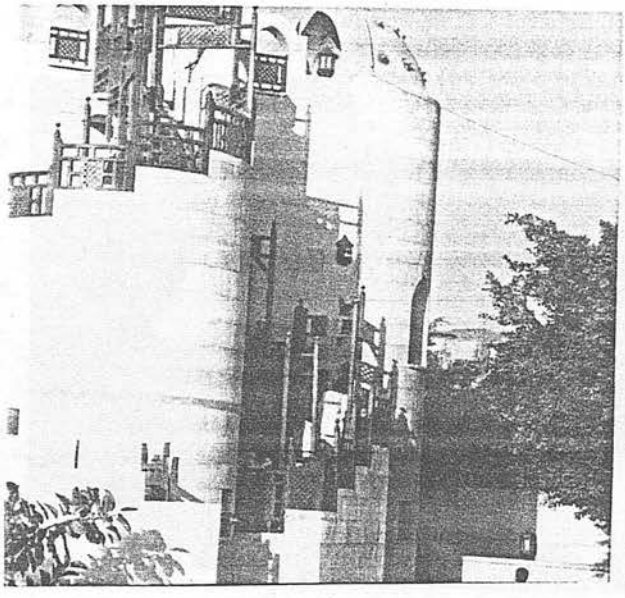


Fig. (8.9), Children crowded by the stairs of the library

B) **Second Area: North the Garden. B-1 Setting SZ 4**

The division of the second area's settings is shown in figure (8.10).

Location: The maze represents the fourth setting in El Sayyida Zayinab garden. It exists at the south edge of the area, (figure 8.10).

Landscape elements: The landscape elements within setting SZ 4 are mainly in the form of stepped stones, shrubs and trees (palm and faeces). No horizontal shaded objects were observed in the setting, it is totally exposed to the sun.

Participants' socio-cultural characteristics: Children and few teenagers were playing in the setting. Boys were more than girls in setting SZ 4.

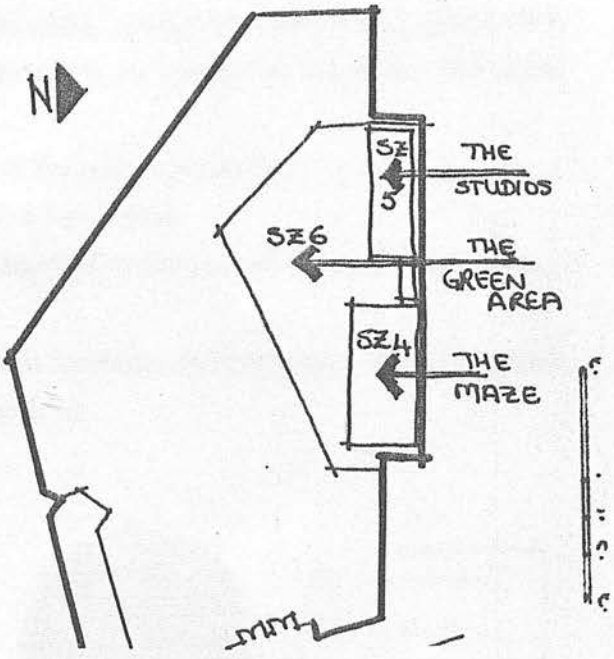


Fig. (8.10) Division of settings in the second area.

Date: 21.8.93 **Time:** 1.10 p.m.

Participated Activities:

Form of activities:

Individual: individual participants were sitting or standing.

Intrinsic: small groups were sitting, standing, chatting and watching.

Group: Large groups were sitting and chatting.

Categories of activities:

Physical: Children were actively playing hide and seek or walking, while passively they were either sitting or standing, [figure (8.11)] .

Social: While their participation in the physical activities, participants were chatting and shouting.

Cognitive: no cognitive activities were observed in the setting.

Job's related: No jobs' related activities were observed .

Fig. (8.11) Children playing in setting SZ 4.

Date: 26.8.93 **Time:** 5.20 p.m.

Participated Activities:

Form of activities:

Individual: children who were observed alone were sitting and watching, while others were playing.

Intrinsic: intrinsic groups were mainly sitting, standing, chatting and watching their friends.

Group: large groups were running, sitting, jumping, hiding, standing, chatting and watching others.

Categories of activities:

Physical: Children were actively running, jumping, hiding and passively, sitting and standing. The physical activities largely depend on the variety of the shape and level within the setting.

Social: A few children were talking, but most of them were shouting.

Cognitive. no cognitive activities were noticed in the setting.

Job's related: No job's related activities were observed in the second time of observation.

Charts (8.10) and (8.11), illustrates the relation between the categories of participated activities in setting SZ 4 in both times of observation.

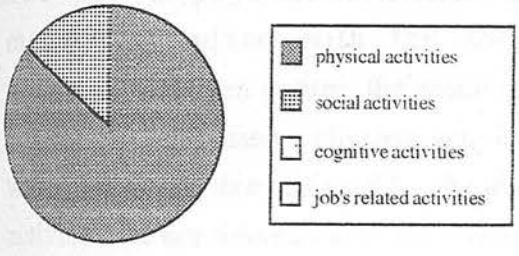


Chart (8.10), Categories of participated activities in setting SZ 4 at the first time of observation

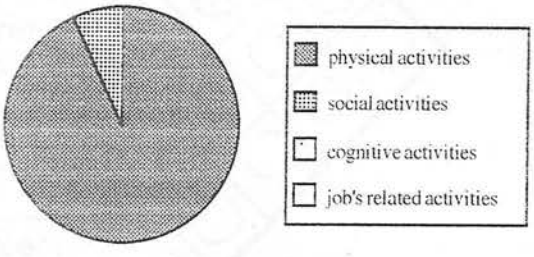


Chart (8.11), Categories of participated activities in setting SZ 4 at the second time of observation.

In setting SZ 4 the participated activities at both times of observation were nearly the same. The only differences were that the physical activities were less participated, while the social were more participated at the first time of observation than the second.

Behaviour setting and the socio-physical aspects: The tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.5) illustrates such relation.

	TOOLS		EQUIPMENT		
	sitting	learning	authentic	ground	functional
PHYSICAL ACTIVITIES:	●	●	●	●	●
SOCIAL ACTIVITIES:	●	○	●	○	●
COGNITIVE ACTIVITIES:	○	○	○	○	○
JOB'S RELATED ACTIVITIES:	○	○	○	○	○

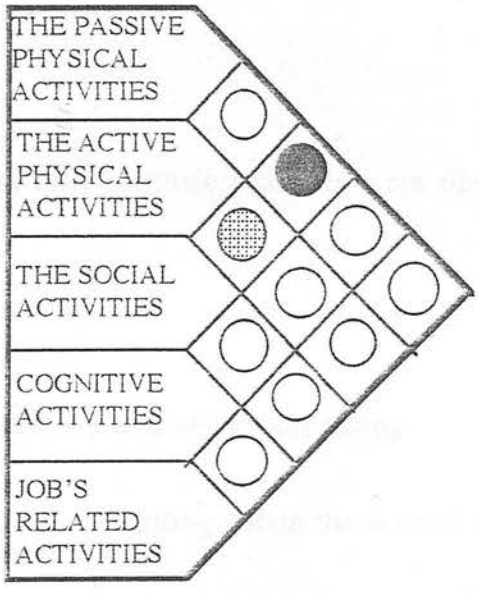
Table (8.5)Behaviour setting synomorphy, SZ 4.

○ were not examined ◔ Weak ◑ Moderate ● good

SZ 4 is a suitable setting in terms of children's imaginative play. Although the weather was hot, children were observed enjoying their games in the maze. The materials used are very hard and harmful so that complains from injuries were noticed. The behaviour synomorphy is considered good with relation to the participated activities and both tools and equipment. Functionally, children need soft ground and surfaces to participate in the physical activities specially the active.

The activity mix and package:

Chart (8.12) symbolises the mix between activities in time and space of setting SZ 4. The passive physical activities are strongly mixed with the social and related activities. The active physical activities are moderately mixed with the social activities. Between groups, the social and both active and passive physical activities were mixed. Within setting SZ 4 the main activities are considered the active physical activities. The rest of the activities could be considered as secondary.



Chart(8.12), The mix of participated activities within groups of participants, SZ 4..

B-2 Setting SZ 5

Location: The studios represent setting SZ 5 and illustrated at the north east edge of the second area.

Landscape elements: Setting SZ 5 is made of hard stone and wood. Beside a small green open space the setting is in the form of an indoor setting for teaching clay artefact.

Participants' socio-cultural characteristics: Two members from the administration were teaching the children a number of things as needle work. About nine children were learning such skills.

Date: 21.9.93 **Time:** 1.25 p.m.

Participated Activities:

Form of activities:

Individual: Only individual from of activities existed in the setting at the first time of observation. Children were playing with clay, needle work and watching others.

Categories of activities:

Physical: physically, children were passively either sitting or standing.

Social: during learning artefact skills, children were sometimes chatting.

Cognitive: children were enjoying learning clay and needle work.

Job's related: The setting as a whole represents an area for teaching clay artefact accordingly the participated activities are related to the setting.

Date: 26.9.93 **Time:** 5.35 p.m.

Behaviour Activities:

Form of activities:

Intrinsic: at the second time of observation, only intrinsic activities were observed. Children were sitting and chatting.

Categories of activities:

Physical: at the second of observation participants were passively only sitting.

Social: children were chatting

Cognitive: no cognitive participated activities in the setting within the second time of observation.

Job's related: No job's related activities were identified in setting 5.

Charts (8.13) and (8.14), illustrates the relation between the categories of participated activities in setting SZ 5 in both times of observation.

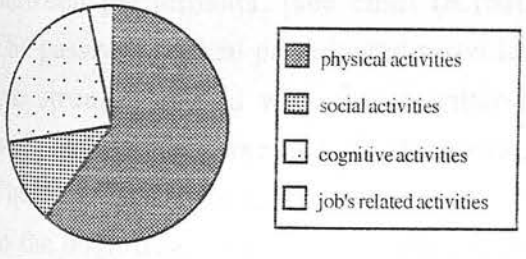


Chart (8.13), Categories of participated activities in setting SZ 5 at the first time of observation

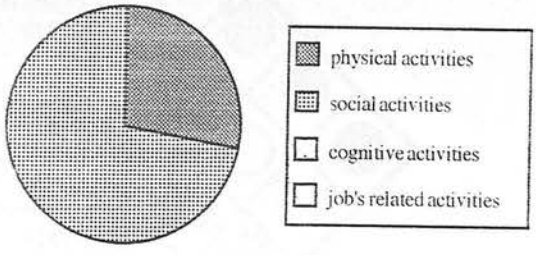


Chart (8.14), Categories of participated activities in setting SZ 5 at the second time of observation.

The above charts shows a great differences between the participated activities at both times of observation. At the first time of observation the priority was for the physical activities followed by the cognitive, then the social and finally the jobs' related activities. On the other hand, only two activities were participated at the second time of observation. The social activities had the priority followed by the physical activities.

Behaviour setting and the socio-physical aspects: The tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.6) illustrates such relation.

	TOOLS		EQUIPMENT		
	sitting	learning	authentic	ground	functional
PHYSICAL ACTIVITIES:	●	○	●	○	○
SOCIAL ACTIVITIES:	●	○	○	○	○
COGNITIVE ACTIVITIES:	●	●	●	●	●
JOB'S RELATED ACTIVITIES:	●	●	●	●	○

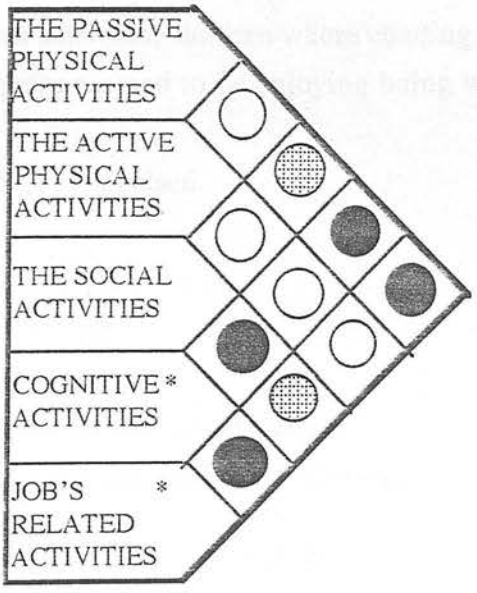
Table (8.6) Behaviour setting synomorphy, SZ 5.

○ were not examined ● Weak ● Moderate ● good

A shortage in the sitting tools was identified. Moreover, functionally, the children were not practising clay but wax due to the lack of suitable equipment. The size of the studios does not suit the activities planned for. No clay oven was observed in the setting.

The activity mix and package:

Some of the participated activities in the setting were mixed in time and space between participants, [see chart (8.15)]. The passive physical participated activities are strongly mixed with the cognitive, while moderately mixed with the social. The social activities are moderately related to the cognitive. Finally the setting is an indoor setting which is devoted to cognitive activities accordingly the cognitive activities are strongly related to the job's related activities. The cognitive and the job's related activities are the main participated activities in setting SZ 4, while the rest of the activities are secondary.



Chart(8.15), The mix of participated activities within groups of participants, SZ 5.

B-3 Setting SZ 6

Location: The open space located north the studios represents setting SZ 6, [figure(8.12)].

Landscape elements: The natural landscape elements are in the form of grass, palm and faeces trees.

Participants' socio-cultural characteristics: This setting has the lesser number of participants. Children represent the majority in addition to a couple of adults.

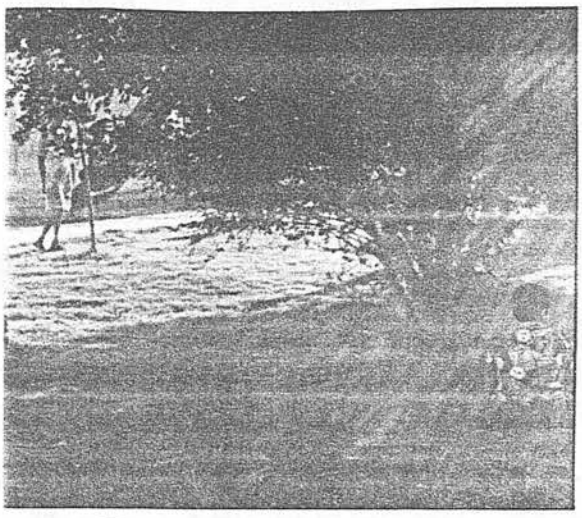


Fig. (8.12) The second area, setting SZ 6.

Date: 21..8.93 **Time:** 1.40 p.m.

Behaviour Activities:

Form of activities:

Intrinsic: intrinsic activities were the only form that had been observed as lying, walking and talking.

Categories of activities:

Physical: Few children were actively walking, while passively there was a child lying on the grass by the shaded spot.

Social: While their participation in the physical activities, children where chatting.

Cognitive: The child who was lying on the grass seemed to be enjoying being with self for a period of time.

Job's related: no job's related activities have been recognised.

Date: 26.8.93 **Time:** 5.50 p.m.

Behaviour Activities:

Form of activities:

Intrinsic: the intrinsic was observed in the form of sitting and chatting.

Group: groups were sitting, chatting, standing, watching, running or playing.

Categories of activities:

Physical: participants were passively sitting, standing or lying, while actively they were running and playing. Lying on the grass was related to a faeces tree and its shade.

Social: The social activities were participated between groups who were chatting.

Cognitive: While sitting or lying, only few participants seemed to enjoy being with self.

Job's related: no job's related activities were identified at the second time of observation.

Charts (8.16) and (8.17), illustrates the relation between the categories of participated activities in setting SZ 6 in both times of observation.

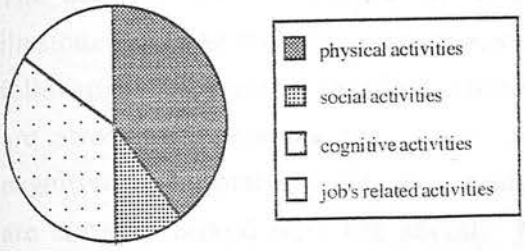


Chart (8.16), Categories of participated activities in setting SZ 6 at the first time of observation

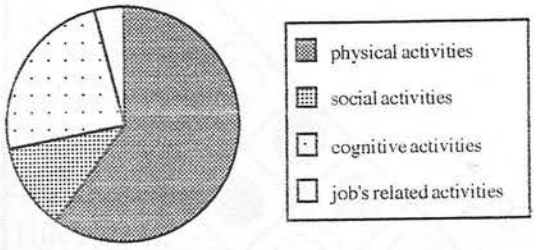


Chart (8.17), Categories of participated activities in setting SZ 6 at the second time of observation.

The previous two charts shows that at the first time of observation the priority was for both the physical and cognitive activities. They were followed by the job's related activities and finally the social activities. On the other hand, the priority was for the physical activities at the second time of observation, followed by the cognitive, then the social and finally the job's related activities.

Behaviour setting and the socio-physical aspects: The tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.7) illustrates such relation.

	TOOLS		EQUIPMENT		
	sitting	learning	authentic	ground	functional
PHYSICAL ACTIVITIES:	◕	○	●	●	◕
SOCIAL ACTIVITIES:	◕	○	◕	◕	◕
COGNITIVE ACTIVITIES:	○	○	○	○	○
JOB'SRELATED ACTIVITIES:	○	○	○	○	○

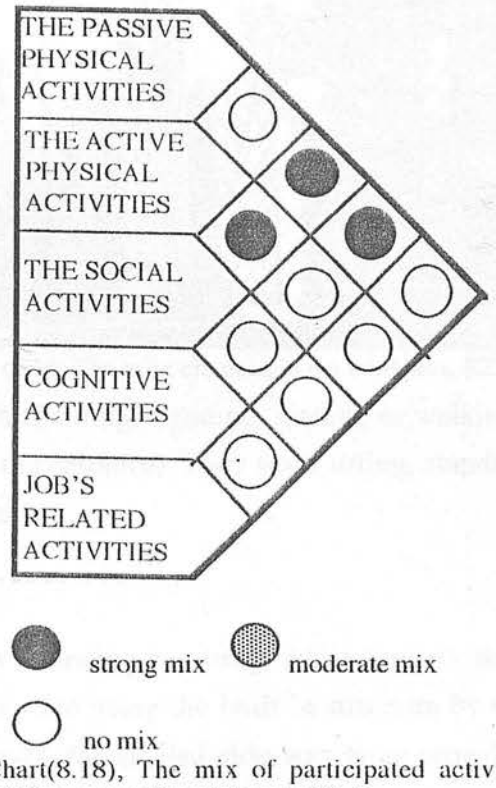
Table (8.7)Behaviour setting synomorphy, SZ 6.

○ were not examined ◕ Weak ◕ Moderate ● good

As mentioned earlier, setting SZ 6 is the lesser setting used by participants. This could be due to the lack of the tools and equipment which could attract children. Setting SZ 6 only included grass and immature trees with no attracting points as the theatre which is detached to setting SZ 3. On the other hand, SZ 6 represents an extension for setting SZ 5, but due to the lack of attraction the former is quiet in terms of activities. Accordingly, the behaviour synomorphy is relatively weak in relation to the activities participated, although the ground and authentic equipment are suitaable for users socio-cultural characteristics.

The activity mix and package:

The activity mix in setting SZ 6 are illustrated in chart (8.18), which shows the followings: The passive physical activities are strongly mixed to the social and cognitive. The active physical activities are strongly mixed with the social. No other mixed activities were observed in both times of observation. Most of the participants were in the intrinsic form. Accordingly, the mix of activities happened within groups but no mix between groups was identified. Participated activities in setting SZ 6 were not easy to classify in terms of main and secondary.



Chart(8.18), The mix of participated activities within groups of participants, SZ 6.

Notes of observation within the second area:

The area of the studios is very limited and does not offer the full facilities for clay practising i.e. an appropriate space for the clay oven . Besides, watching others is part of the learning process which the area does not allow. The ground material of the maze is hard for the participated activities e.g. jumping, running.. etc. This results lot of injuries took place at the time of observation.

C) **Third Area: Form East to West**

C-1 Setting SZ 7

The division of the three settings in the third area is shown in figure (8.13).

Location: The main entrance has been categorised as setting SZ 7, at the south edge of the area.

Landscape elements: The landscape elements in the setting are stone, steel and faeces trees. The natural vertical elements (trees) are still immature, and the only shaded spot is occupied by children, [figure (8.14)].

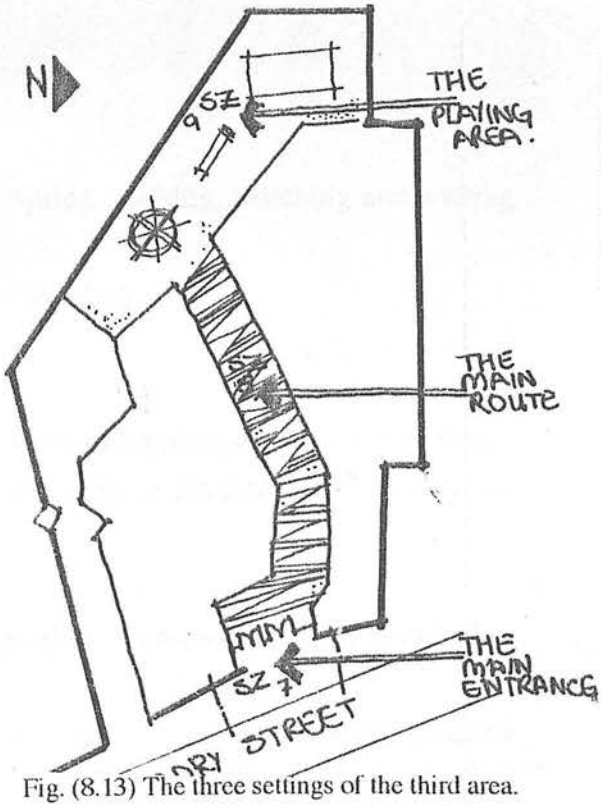


Fig. (8.13) The three settings of the third area.

Participants' socio-cultural characteristics: Most participants were teenagers or children except of one or two adults as part of the administration office who were in control of the entrance.

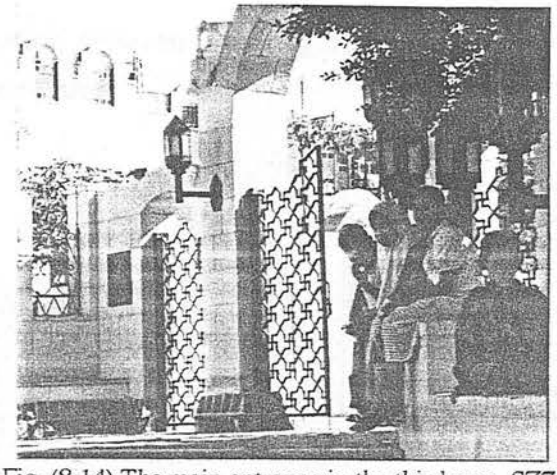


Fig. (8.14) The main entrance in the third area, SZ7.

Date: 21.8.93 **Time:** 2.00 p.m.

Participated Activities:

Forms of activities:

Individual: individual activities were in the shape of sitting, standing, waiting or walking.

Intrinsic: intrinsic participants were crowded by the entrance. They were sitting, standing or watching, cars, pedestrians and other participants.

Categories of activities:

Physical: children in setting SZ 7 were passively standing or sitting, while actively they were just walking to enter the garden. Children were using the built in structure by the entrance for sitting (secondary seating). Moreover, the shaded side was more crowded with children.

Social: While children were waiting or watching others, they were talking.

Cognitive: few children were waiting and they seemed to be lost in their thoughts.

Jobs related: the two adults who were controlling the gate were sitting by the entrance of the garden.

Date: 26.8.93 **Time:** 6.00 p.m.

Participated Activities:

Forms of activities:

Individual: children who were alone were mostly sitting, walking, watching and waiting for others.

Intrinsic: intrinsic groups were chatting, sitting and standing

Categories of activities:

Physical: as the previous time of observation but more in number, children were sitting, standing and walking. children were sitting on the built in landscape element by the entrance, where shade exists.

Social: some children were talking.

Cognitive: Children who were alone waiting or watching others seemed to be absorbed in their own thoughts.

Job's related: Three adults from the maintenance circuit were controlling the entrance beside siting and chatting.

Charts (8.19) and (8.20), illustrates the relation between the categories of participated activities in setting SZ 7 in both times of observation.

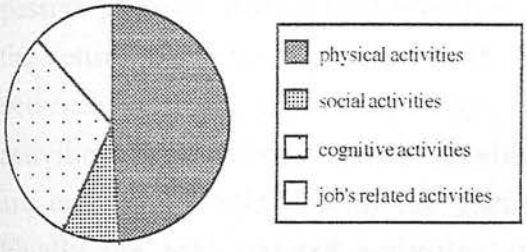


Chart (8.19), Categories of participated activities in setting SZ 7 at the first time of observation

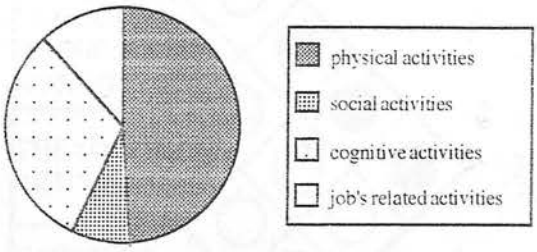


Chart (8.20), Categories of participated activities in setting SZ 7 at the second time of observation.

The above charts shows that at both times of observation no differences have been noticed. At both times, the priority was for the physical activities followed by the cognitive activities, then the job's related and finally the social activities.

Behaviour setting and the socio-physical aspects: The tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.8) illustrates such relation.

	TOOLS		EQUIPMENT		
	sitting	learning	authentic	ground	functional
PHYSICAL ACTIVITIES:	●	○	●	●	●
SOCIAL ACTIVITIES:	●	○	●	●	●
COGNITIVE ACTIVITIES:	○	○	○	○	○
JOB'SRELATED ACTIVITIES:	◍	○	●	●	●

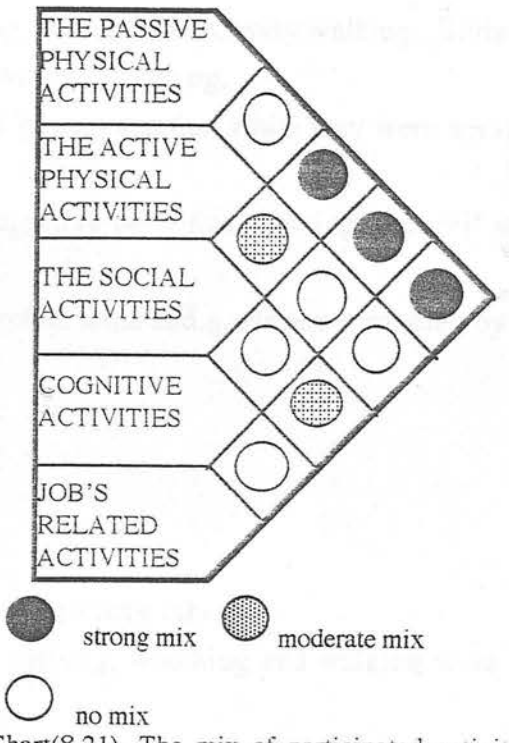
Table (8.8) Behaviour setting synomorphy, SZ 7.

○ were not examined ◍ Weak ● Moderate ● good

The tools and equipment are considered good in setting SZ 7 with relation to the activities participated, [see figure (8.8)]. The figure shows how children were using the landscape equipment to fulfil their need of the setting. The secondary sitting elements were dominant at this setting.

The activity mix And package:

The mix of activities within groups in setting SZ 7 is showed in chart (8.21). The passive physical participated activities in the setting are strongly mixed with all activities except the active physical activities. The active physical activities are moderately mixed with the social. Finally the job's related activities are strongly related with all passive and moderately with social. Between groups the mix could be summaries. Groups were mainly mixed through the passive physical activities participated. On the other hand the passive and active physical activities represent the main activities participated. The rest are secondary.



Chart(8.21), The mix of participated activities within groups of participants, SZ 7.

C-2 Setting SZ 8

Location: Setting SZ 8 is represented by the main route which works as a spine from the entrance to the opposite side of the garden where the playing equipment are allocated, [figure (8.15)].

Landscape elements: The main landscape elements that are used in the settings are generally made of stones, stepped stones, shrubs, fountains (out of order) and both palm and immature canopy trees. The stepped stones are also used for sitting.

Fig. (8.15) The main route of the garden, setting SZ 8.

Participants' socio-cultural characteristics: Participants are mainly children from 7 to 12 years old. Few adults were using the setting and are part of the maintenance circuit.

Date: 21.8.93 **Time:** 2.15 p.m.

Participated Activities:

Form of activities:

Individual: participants who were alone were sitting and standing.

Intrinsic: intrinsic groups in the setting were sitting, standing and chatting.

Categories of activities:

Physical: children were either passively sitting, standing or actively walking. Sitting in setting SZ 8 was related to the stepped stones within the setting.

Social: most of the participants were engaged in conversation while they were walking, sitting or standing.

Cognitive: Children who were engaged in cognitive activities as being with self were alone (individual form)

Job's related: Electricians were fixing some broken lams and gardeners were seen by the setting.

Date: 26.8.93 **Time:** 6.10 p.m.

Participated Activities:

Form of activities:

Individual: individuals were sitting, standing and watching others.

Intrinsic: sitting, standing, chatting, running, playing, watching and walking were the participated activities by intrinsic participants..

Group: Sitting, standing and chatting were the participated activities by large groups.

Categories of activities:

Physical: children were sitting and standing passively, while actively they were walking and running in setting SZ 8. As the previous time of observation, sitting was strongly related to the stepped stone parts.

Social: While sitting, running and walking, children were chatting with each others.

Cognitive: some children were watching others and seem to be absorbed in such activity.

Job's related: No job's related activities were observed.

Charts (8.22) and (8.23), illustrates the relation between the categories of participated activities in setting SZ 8 in both times of observation.

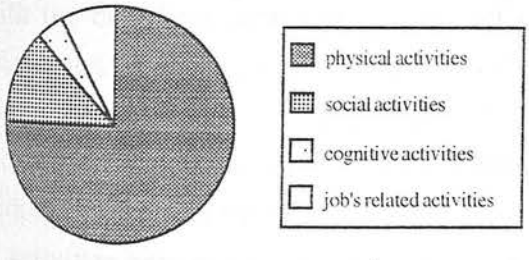


Chart (8.22), Categories of participated activities in setting SZ 8 at the first time of observation

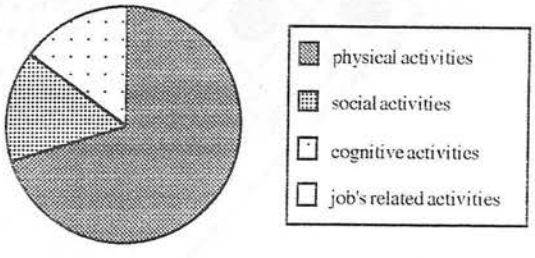


Chart (8.23), Categories of participated activities in setting SZ 8 at the second time of observation.

The differences between the participated activities at both times of observation was only in terms of the job's related activities which only existed at the second time. At both times the priority was for the physical activities followed by the social and finally the cognitive activities. The latter were more participated at the second time than the first.

Behaviour setting and the socio-physical aspects: The tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.9) illustrates such relation.

	TOOLS		EQUIPMENT		
	sitting	learning	authentic	ground	functional
PHYSICAL ACTIVITIES:	●	○	●	◍	●
SOCIAL ACTIVITIES:	●	○	●	●	●
COGNITIVE ACTIVITIES:	◍	○	○	○	○
JOB'S RELATED ACTIVITIES:	●	○	●	●	●

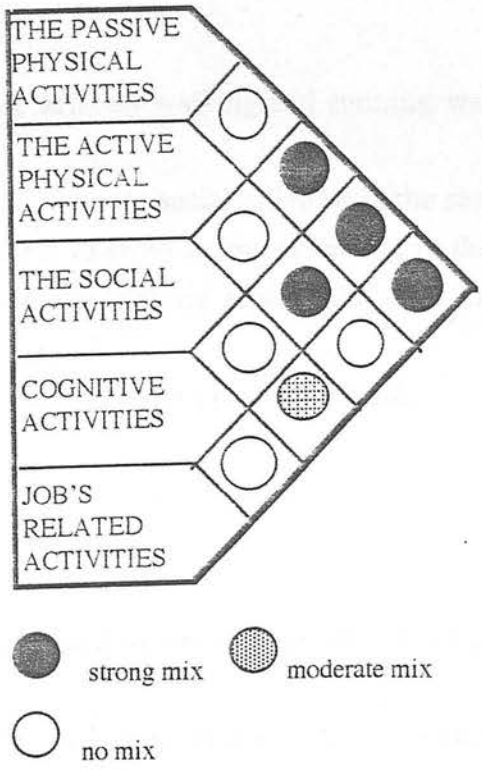
Table (8.9) Behaviour setting synomorphy, SZ 8.

○ were not examined ◍ Weak ● Moderate ● good

Except for the material of the ground and steps which does not suit children's movement and resulted injuries between participants, the landscaped tools and equipment could be categorised as good. This evaluation was made keeping in mind that trees will grow and result more shaded spots for the children to use.

The activity mix and package:

Within groups the mix of activities will be illustrated in chart (8.24). Individual participants mixed the passive physical activities with all other activities strongly except for the active physical. The active physical activities were strongly mixed with the cognitive activities. The job's related activities were strongly mixed with the passive physical activities but moderately and in an indirect way mixed with the social. On the other hand, the mix of activities between groups took place in setting SZ 8 between the passive and active physical activities. Also between the passive physical and social activities. In setting SZ 8 the active and passive physical activities represent the main and the rest are the secondary activities of the package.



Chart(8.24), The mix of participated activities within groups of participants, SZ 8.

C-3 Setting SZ 9

Location : Setting SZ 9 represents the west side of the garden where the playing equipment exists, [figure (8.16)].

Landscape elements: Within setting SZ9 sand, stone, tent, very few faeces trees, a colourful marry-go-round and a slide (metal) are used as landscape elements. The tent is the only protected area from the sun. The playing equipment were very hot when touched.

Participants' socio-cultural characteristics: Children represent the users of the setting. Two adults were in the tent teaching the children drama.

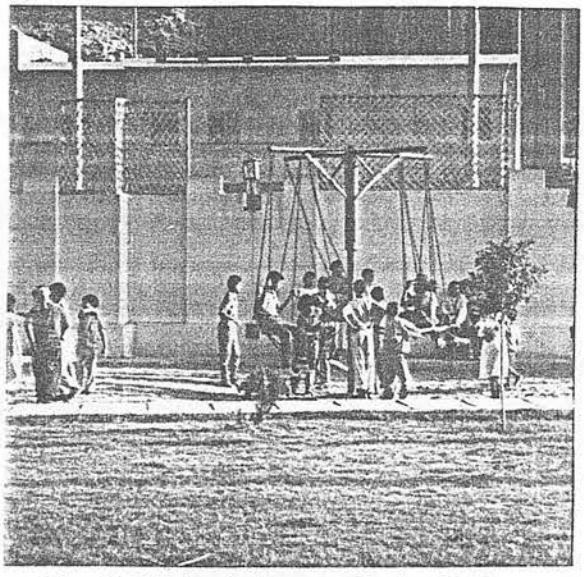


Fig. (8.16) The playing area, Setting SZ 9

Date: 21.8.93 **Time:** 2.30 p.m.

Participated Activities:

Forms of activities:

Individual: children who were alone were either playing or watching the drama.

Group: groups were playing in the playing area, while in the tent they were practising and watching the drama.

Mass: mass groups were watching the drama.

Categories of activities:

Physical: passively sitting or standing, while actively walking and running were the observed physical activities in setting SZ 9

Social: in the playing area, chatting and shouting were the social activities in the setting.

Cognitive: children as players and audience seem to enjoy drama practising in the tent. Some children were lost in there thoughts in the playing area at the first time of observation.

Job's related: Two adults were teaching the children to act in a play at the tent.

Date: 26.8.93 **Time:** 6.35 p.m.

Participated Activities:

Form of activities:

Individual: waiting for someone, standing, sitting, running and playing were participated by children who were alone.

Group: playing, waiting, standing, sitting, chatting and running were also participated by groups.

Categories of activities:

Physical: children were engaged in a number of physical activities passively such as sitting or standing, while actively they were playing, running and walking.

Social: children were shouting and talking in setting SZ 9

Cognitive: a noticed number of children seem to be waiting for long for their turn to play with the equipment in the play area, they were using what Jan Gehl called secondary seating. The secondary seating in setting SZ 9 is different than the others it is a low wall detached to the main one, [see figure (8.17)].

Job's related: No job's related activities were noticed at the second time of observation.

Charts (8.25) and (8.26), illustrates the relation between the categories of participated activities in setting SZ 9 at both times of observation.

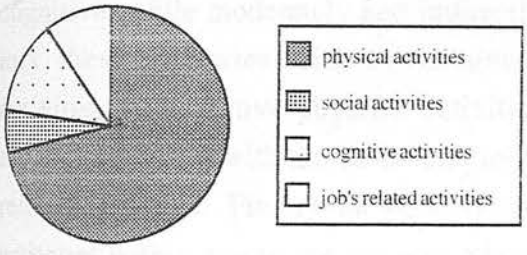


Chart (8.25), Categories of participated activities in setting SZ٩ at the first time of observation

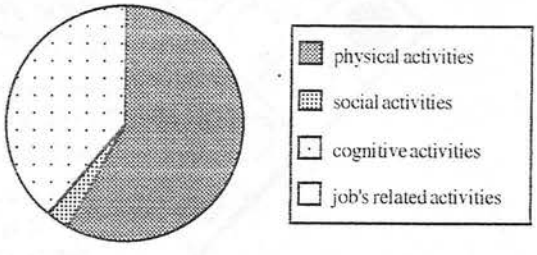


Chart (8.26), Categories of participated activities in setting SZ٩ at the second time of observation.

The job's related activities were only participated at the first time of observation. The priorities of the participated activities were for the physical activities followed by the cognitive then the social activities. The physical activities were observed more at the first time while the cognitive were more observed at the second time.

Behaviour setting and the socio-physical aspects: The tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.10) illustrates such relation.

	TOOLS		EQUIPMENT		
	sitting	learning	authentic	ground	functional
PHYSICAL ACTIVITIES:	◍	○	◍	●	◍
SOCIAL ACTIVITIES:	◍	○	◍	○	◍
COGNITIVE ACTIVITIES:	●	●	◍	○	●
JOB'S RELATED ACTIVITIES:	●	◍	◍	○	○

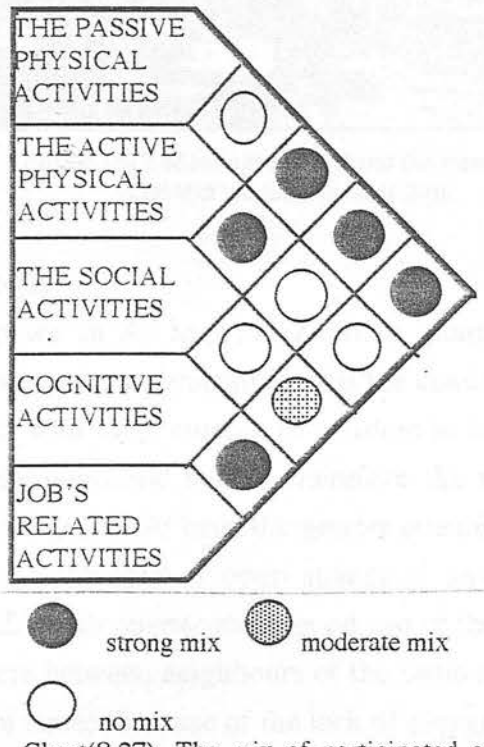
Table (8.10)Behaviour setting synomorphy, SZ 9.

○ were not examined ◍ Weak ● Moderate ● good

Equipment and tools in setting SZ 9 are considered poor in relation to their number and material. The playing equipment are made of metal that absorbs heat and the number of the equipment is by far so limited in relation to the number of children. Sitting landscape tools are also poor. On the other hand the tent represents a perfect idea from the cognitive, physical and environmental activities' side of view.

The activity mix and package:

Chart (8.27), illustrates the mix of activities between groups. It shows that participants strongly mix the passive physical activities with the social and cognitive, while moderately and indirectly mix these activities with environment activities. The active physical activities are mainly mixed with the social and job's related activities. Finally the job's related activities within groups are strongly mixed with the cognitive and passive, while moderately and indirectly with the social activities. The mix of activities between groups was observed in terms of the cognitive, social and passive in the setting.



Chart(8.27), The mix of participated activities within groups of participants, SZ 9.

Moreover, the job's related activities were mixed with the cognitive, social and the passive physical activities. The job's related activities, the cognitive and active physical activities are considered main, while the social and passive are secondary activities. Moreover, children seem to participate in playing with the equipment as a main activity and not secondary.

Notes of observation within the third area:

The landscape elements do not suit the users, as an example the height of the lamps is the same as the children, so there were many complains from the staff about broken lamps, [figure, (8.17)]. The fountains were off, despite the high value and symbolic meaning of water in the Egyptian culture[1] and the high temperature of the climate.

Fig. (8.17) Activities and landscape elements in SZ 9.

[1] see chapter three for Egyptians and the Islamic concept for recreational gardens.

This raised a question if it is the staff responsibility to teach the children to deal with landscape elements, or is it the architecture's role to choose the landscape elements that suits their behaviour. Moreover, the number of play equipment is very limited compared to the capacity of the users, and children were waiting for their turn[figure (8.18)].

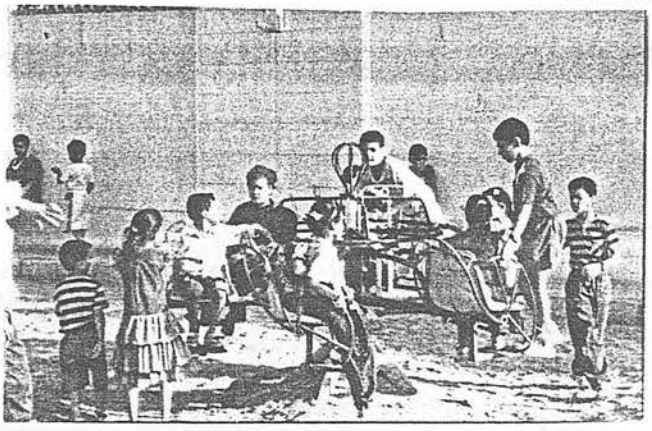


Fig. (8.18) The swings in SZ 9 and the view of the children waiting for their turn.

8.1.4 Summary of findings:

8.1.4.1 The interview, analysis of the findings:

Through the interview that took place in Al Sayyida Zayinab quarter, the examination of the socio-economic data, lead to the understanding that the concept of a garden does suit such over populated quarter with large number of children in families. Most social groups of this quarter are neighbourhood bound, therefore the need to consider elements that encourage social exchange should have the greater attention than that for the individual. Whether because of the lack of open spaces or any other recreation facilities, children in Al Sayyida Zayinab quarter make good use of the street front and most of the friendship relations were between neighbours of the same street if not the same building. Children often play in streets because of the lack of playgrounds. They prefer playing in street fronts to be in close contact with their families 'to know that mum is always there!' This could be the reason that most participants were from around the garden itself more than the whole quarter.

The interview that took place in the garden has lead to a number of findings. Some children and parents appreciate it. The garden fulfil some of participants' needs; children could meet their friends, they enjoy performances taking place and most of all they enjoy the cognitive activities, educational or cultural. Moreover, mothers are used to leave children in there as a safe place. Members of the maintenance circuit appreciated the garden for improving the children's behaviour.

On the other hand, others complained from some children's unacceptable behaviour whether in hiding in obscure parts of the garden or in misusing the landscape elements. Boredom, deficiency in cognitive and physical facilities were recorded through the interview of the operating circuit. Moreover, complains from the impact of the use of selected materials (especially stones), and prevention from the use of the open green areas were also perceived in the interview.

Time of observation	The Setting's Socio-Physical Dimension							The Participated Activities										Notes of Observation
	The physical environment and the landscape elements				The social environment			Form of activities				Categories of activities				Activity mix & package		
	behaviour setting synomorphy		encourage the with component	encourage the without component	Type of groups													
	Landscape tools	Landscape equipment			family	friends	family/ friends	Individual	Intrinsic	Group	Mass	Physical	Social	Cognitive	job's related	Main	Secondary	
SZ1	12.15 pm 4.20 pm	wooden chairs and tables educational tools as computers and books.	lighting objects stones and wood	moderate	strong	●	●	○	●	▨	▨	none	▨	○	●	▨	cognitive and job's related activities	physical	The lighting objects are not suitable for the function, while in terms of tools the number of chairs and tables was deficient
								●	▨	▨	none	▨	○	●	▨			
SZ2	12.35 pm 4.50 pm	secondary seats as audience fixed steps. notice boards by the stage.	stone and grass lighting objects and spots fixed by the stage.	moderate	moderate	●	▨	○	▨	▨	none	none	●	▨	none	○	cognitive and physical	social	complains from the miss-visual aspects of the theatre were recorded, beside the unsuitability of the stone & use
						○	▨	▨	○	▨	▨	●	▨	○	▨	▨			
SZ3	12.50 pm 5.10 pm		palm and immature canopy trees lighting object metal structure	weak	weak	●	○	▨	○	▨	▨	none	●	▨	none	none	physical	social	the heights of the lighting equipment were not suitable for the behaviour of the specific stage of life-cycle.
						▨	●	○	▨	○	●	none	●	▨	▨	none			
SZ4	1.10 pm 5.00 pm	built-in stone seats	stepped stones shrubs and small plants wood and stone	strong	strong	●	▨	○	○	▨	●	none	●	▨	none	none	active physical		the built -in seats are arranged right angle. In general the setting is very good for children despite the used material
						○	●	○	○	▨	●	none	●	▨	none	none			
SZ5	1.25 pm 5.35 pm	wooden chairs and tables wooden shelves	stone and wood indoor equipment	moderate	strong	●	▨	none	▨	none	none	none	▨	○	▨	▨	cognitive and job's related activities		lack of suitable cognitive equipment.
						○	○	none	none	▨	none	none	○	▨	▨	none			
SZ6	1.40 pm 5.50 pm		grass, palm and faeces tree	weak	weak	▨	●	none	none	○	none	none	▨	▨	○	none	physical		no attracting objects for children in the setting.
						▨	●	none	none	▨	○	none	▨	▨	○	none			
SZ7	2.00 pm 6.00 pm		greens lighting object metallic fence stoned steps	weak	strong	▨	●	none	▨	●	none	none	●	▨	▨	○	physical		a perfect selection and location of secondary seats was observed in terms of use at this setting.
						▨	●	none	▨	●	none	none	●	▨	▨	○			
SZ8	2.15 pm 6.10 pm	built in stone seats fountains (out of order)	shrubs and palm, canopy and immature trees. lighting object	weak	strong	●	▨	none	▨	●	none	none	▨	▨	▨	○	physical		the built-in seats are arranged in a strict linear form.
						○	▨	●	○	▨	●	none	●	▨	▨	none			
SZ9	2.30 pm 6.35 pm	metallic playing tools, i.e. a slide and a merry-go-round cloth tent& movable chairs	stone and wood wall the ground is sand	weak	strong	▨	●	none	▨	none	●	●	▨	▨	○	none	physical, cognitive & job's related activities		failure in the number and material of playing tools. The tent is perfectly used at this setting.
						▨	●	none	▨	none	●	none	▨	○	none	none			

eral notes of observation:

- all times of observation, the weather was hot, temperature was in the range from 32-36.
- ndity was relatively considered high.
- all outdoor settings the edge effect has proven to succeed.
- st sitting took place on secondary seats.
- ne then wood were the major materials used in all settings.
- e grass was mangled at setting SZ 3.

Key of Symbols:

- ● Relatively very high rating
- ▨ Relatively high rating
- ▨ Relatively moderate rating
- ▨ Relatively weak rating
- ○ Relatively very weak rating

Table (8.11), The descriptive determinants of the paradigm in Al Hod Al Marsoud garden

8.1.4.2 The observation, analysis of the findings:

The sociable behaviour of inhabitants of Al Sayyida Zayinab quarter tends toward informal and chance meetings. The street front (*Hara*) is ideally suited and at the same time allows some control over sociable behaviour. Many house hold activities take place outdoors more comfortably than indoors. Such activities may include washing, playing and specially socialising. Therefore, such outdoor spaces could form an integral part of the house. All these support the idea that the low-social class may have more need for open spaces not only for recreation needs but also for other social activities .

The fact that participants do not want open space far from their homes in distant locations called parks is quite true. This has been proven through both; the observation of the participated activities in streets and when some residence of the community were not familiar with the location of the garden. The examined sample, accordingly, prefer open spaces at their doorstep, freely available for all sections of the community.

8.1.4.3 Behaviour setting survey and the recreation paradigm of SZ garden:

Observation based on K21 scale of behaviour setting survey is then related to the recreation paradigm where a number of findings emerged. Such findings are summarised through table (8.11), where every rating was given a number and the sum of numbers showed the factor mostly affecting each determinant in the paradigm. The followings were concluded from the outcomes of the table and observation:

1) Socio-cultural characteristics of participants:

Participants of Al Sayyida Zayinab garden represent the proper sample theoretically sought, being part of the lower and lower-middle social class. They stem from the first stage of life-cycle, except of the maintenance circuit who represent the third stage. At most times of observation, boys were more than girls.

2) The socio-physical characteristics of the environment:

2.a) The social environment:

Friends represent the main social group participating in the garden, followed by family and finally family/friend group.

2.b) The Physical Environment:

The natural environment: The observation of the behaviour settings in the garden took place in summer, in the 21st and 26th of August 1993, the weather was hot (38^{o}c) and humidity was considered relatively high. Such climate calls for landscape elements that moderate the chemical-ecological quality of the environment, for the protection from heat and humidity. In addition, the socio-cultural quality of the environment was studied with reference to the arrangement and organisation of such landscape elements and the psycho-physiological needs of participants.

From observation, it has been concluded that the frequency of out-door activities was lowest during the morning, increased during the afternoon and was highest during the evening. As well, during the mornings children preferred the indoor activities (mostly cognitive as reading, computer, clay practising, and needle work) than in the evenings.

The natural landscape elements: Plants as grass, palm trees, faeces and immature canopy trees were arranged in most settings in no noticed function; structurally, visually or environmentally. An intention has been strongly noticed to conserve the old palm and canopy trees and relate them to the design of the garden. The palm trees are intently related to the linear route of movement, SZ 8. Moreover, fountains of water in the design of the garden have a very strong influence on the users' movement pattern. The psychological and visual effect of water were absent as fountains were off in all times of observation.

The man-made landscape elements: The use of steps, as landscape elements, is very strong in the garden. Beside defining the space and moving participants from one level to the other, steps were strongly used in the garden as secondary seats (SZ 2). In the outdoor settings seats were mostly built-in. They were either arranged in a strict linear pattern (SZ 8) or right angled (SZ 5). Stone followed by wood represent the major used materials

The analysis of both the natural and man made landscape elements, with reference to natural physical environment, leads to the need for shelter and protection to reduce the effect of the most annoying climatic factors. Protection from sun was not fully achieved presently, neither natural nor artificial protective landscape elements was evident, since canopy trees did not reach their full growth yet.

2.c) The socio-physical relation:

The "without" component was strong in the indoors' settings which were devoted to cognitive functions. On the other hand, the social activities are found to be strong in setting SZ 8, although the arrangement of seats were strict linear, i.e. encouraging the "without" component more than the with. Participants' behaviour, in conclusion, is stronger than the existing physical design.

Evaluation of the landscape elements with reference to the social environment, found that the "edge effect" has proven to succeed to be successful. Edges seem to attract participants to engage in passive physical activities, e.g. sitting and standing. Children were always bending by the wall, sitting on secondary seats or lying by a tree. Settings that include attractive equipment and tools beside edges were the most busy settings.

The designer has succeeded in choosing the shape and type of seats with terms of participants' socio-cultural characteristics. For example the use of secondary seating as primary ones are noticed in most settings. Also, stepped fitted-in benches as part of the landscape of the garden are not only used for sitting but also for physical activities, e.g. SZ 2, SZ 4, SZ 7 and SZ 8. Moreover, the secondary seats are related to settings or spaces that include other activities, which allowed more choice of action and so more number of audience and participants.

On contrary, other landscape elements were not appropriate for participants' behaviour. For example, light objects though seemed visually suitable failed functionally in terms of maintenance due to their heights. In addition, setting SZ 9 did not include any seats, so an appropriate supporting wall was used.

Within the second area the first impression in observing setting SZ 4, was that the designer wasted a lot of space in designing such area, while the analysis of the observation indicated the opposite. The activity totals on the garden showed that the setting, even though hard surfaced part, is one of the most popular settings in the site. Children were playing hide and seek, beside watching people from the setting. Moreover, it has been found that passive physical and social activities were closely related to shaded spots and trees. In reasoning such behaviour, it would appear that children are engaged in active patterns of activities, they thus do not care that much about the environmental aspects of climate.

3) The participated activities in the garden:

3.a) form of activities:

The intrinsic activities represent the major form followed by the group then individual and finally the mass activities. Thus mass activities only existed in two settings (SZ 2 & SZ 9) which afford mass activities to exist and be participated. In setting SZ 1 the individual activities are strongly participated being related to the cognitive activities. At both times of observation the individual activities are weakly observed in setting SZ 4.

3.b) categories of activities:

Between all categories of the participated activities, the physical represent the major ones followed by the social then cognitive and finally the job's related. Although the garden is basically directed towards the cognitive activities, it was found that the physical and social activities have the priority than cognitive as should have been expected. This is a result of a number of reasons; e.g. the deficiency of the quality and number of cognitive facilities and elements in relation to the number of participants, also

the socio-cultural characteristics of this stage of life-cycle should have been more considered in terms of behaviour.

Summing the study of the socio-physical characteristics and its effect on the participated activities with regards to the behaviour setting synomorphy, has revealed the followings:

The choice of tools and equipment in many settings failed to fulfil aspired activities. The form and durability of selected materials seem to dominate the concept of design and to have the priority so ranked on other aspects as safety. Moreover, the lack of tools and equipment that attract participants affected some settings in different ways, for example setting SZ 6 is the least used for the scarcity of such elements. The lack of some cognitive equipment in setting SZ 5 limited the participated activities which in turn lead to the reduction of its use. In addition, the deficiency in the number of playing tools in setting SZ 1 and SZ 9 has lead to crowds of participants. Thus making participants use secondary seats, which were not meant to be used (the low supporting wall).

Most activities were in the form of two way relation. The one-way related activities were identified in settings SZ 2, SZ 4 and SZ 7. Thus were mainly in the form of watching others or events taking place within the settings. For example in setting SZ 7 children were watching others, cars and pedestrians. The designer has succeeded to enhance and support such activity, through the provision of built-in elements. These elements are part of the landscape design and are used by groups and individual, for sitting and sociable behaviour.

The job's related activities were stronger in settings SZ 4 and SZ 9, while setting SZ 5 is very poor. Also some activities were afforded and supported by special forms of settings. The job's related activities are showed to be relevant to both the maintenance circuit and the cognitive activities. Walking as an activity was more concentrated in the linear promenade (SZ 8), which is considered the main route that connects the main entrance with the playing area and other settings. Moreover, while engaged in a passive activity, children were more observed by the edges of the settings (SZ 2, SZ 4, SZ 7, SZ 8 and SZ 9) more than the centre. The reason being that these open settings include strong.

In a general comparison between the nine settings, the most intensely used outdoor settings were settings SZ 1, SZ 2, SZ 3, SZ 4 and SZ 9. Relating such findings to the physical environment, it has been found that these settings include supporting equipment and tools to encourage the activity to exist. These settings were followed by SZ 7, which was relatively high participated for the attractive action taking place. The least used settings were SZ 5 and SZ 6 which do not include attractive activities or sufficient tools.

This shows that landscape elements and attractive actions largely influence the rate of use.

Moreover in comparing the categories to the form of activities in each setting it has been concluded that whenever the individual form of activities is strong the cognitive is strong (SZ 1), while whenever the group or the intrinsic forms of activities are strong the physical activities are relatively very high (SZ 3, SZ 4 & SZ 7). This means the cognitive being one way activity is related to the number of participants.

In addition, the comparative study of the settings helped in deducing the socio-physical relation, through relating the social participated activities to the landscape elements in terms of the "with" and "without" component. It showed that SZ 1 and SZ 5 encourage the "without" component to exist which is fulfilled through the high rating of cognitive and the weak rating of the social activities. On the other hand, settings SZ 7, SZ 8 and SZ 9 did not succeed in fulfilling such relation (with and without). While the social activity rated relatively high, the landscape elements encouraged the without. This means that the landscape elements in these settings should have been better arranged to afford the social activities.

3.c) Behavioural Traces:

Through the observation of behaviour traces two similar settings are noticed; SZ 3 and SZ 8. The former is much more used. The grass in SZ 3 was more mangled and the number of children in the setting were more, since it includes more attractive activities that absorbs children attention and so participation, e.g. it embodies the open theatre, the main route and the playing equipment at the east. Other settings did not reflect clear traces.

3.e) Activity mix and package:

In Al Sayyida Zayinab garden and as far as the most frequent interactions taking place between settings, it was possible to validate some of the diverse interactions between activities. Some of the settings are devoted to particular activities, e.g. SZ 1, SZ 4 and SZ 5. The participated activities in these settings are considered the main ones, while other settings provide for more than one main activities and secondary as SZ 3 and SZ 9. In general, the passive physical activities were always accompanied and mixed with cognitive, social and job's related activities. In most settings, they are found to be secondary activities. Within groups, most job's related activities, wherever existed, were mixed with cognitive. Active physical activities, whether strongly or moderately participated within groups, are found to mix with social ones.

8.2 **Case Study II:** Al Hadeeka El Dawlia (The National Park) Nasr-City Quarter

Al Hadeeka El Dawlia represents the second case study within this chapter. This garden has been selected as it symbolises one of the highly used gardens in Egypt. The main concept of the design was to obtain a variety of sub gardens (settings) within one garden. This concept was planned by Egyptian designers and landscape designers. The second case study, as the previous one, will be examined in terms of the three determinants of the recreation paradigm. First, the case will start by the people who represent both the residents of Nasr City quarter and the participants of the garden. Second, is the environment of both the community of Nasr City and the garden itself. Finally, are the participated activities in the garden. Hence, the previous three determinants of Al Hadeeka El Dawlia will be studied through the followings:

8.2.1 The socio-physical dimension (the environment).

8.2.2 The socio-economic determinant (the people).

8.2.3 The activity dimension (the participated activities).

8.2.1 THE SOCIO-PHYSICAL ENVIRONMENT:

As mentioned earlier, the socio-physical environment is meant by the environment in both its forms, the social and the physical. The environment will be studied through three scales. The first scale is a description of the quarter of Nasr City, the second is the site itself and finally the third represents the garden, the three will be studied as follows:

8.2.1.1 The Quarter.

8.2.1.2 The Site.

8.2.1.3 The Garden.

8.2.1.1 The Quarter of Nasr City:

The quarter of Nasr City is part of the fifth community of Abu-Lughod's classification of Cairo.[1] It is extended to cast until joining Heliopolis suburb, to south up to the hills of Been El-Nahdin and to west until it reaches Abbasiah suburb. It is almost near from Cairo central business district, having a comfortable climate with Cairo. Nasr City is a self dependant city as far as its location, area and size of population is considered. In the same time, it has many functions like the stadium, Universities and the International Fair, which serve regionally and have to be required uses and functions considered in the comprehensive plan of Greater Cairo.

The physical plan of Nasr City succeeded in providing the City with most types of housing. It embodies sectors of economic housing for low income, housing for middle class population and also housing for upper class residence.

[1] See Chapter five for the classification of Cairo's community.

8.2.1.2 The Site of the Case study:

The garden exists in the heart of the seventh district in Nasr City. It is surrounded by four streets, where Abas-El-Akad street, 50 metres wide, is located by the west of the garden and represents one of the main streets in Nasr City. The three other streets are, Mohammed Ibrahim street by the north, Ben Hazm by the south and Moinis El-Khadem by the east [see figure (8.19)]. In general, the site is overlooked by a block of residential towers with commercial shops. By the east end of the site over looking the garden from Moinis El Khadem street, exists one of Nasr City commercial centres for residential needs, residential buildings and a small green neighbourhood area. The total area of the garden is 50 fedan.

8.2.1.3 The Garden, Al Hadeeka Al Dawlia:

The topography of the site is characterised by the variation in elevations and heights, since there are three hills or plateau controlling the site. This type of topography suits very much the garden design and planning. The design concept of the garden is considered as a collection of small gardens or settings each symbolise a country, e.g. Egypt, Morocco, Saudi Arabia, Holland.. etc., [see figure (8.19)].

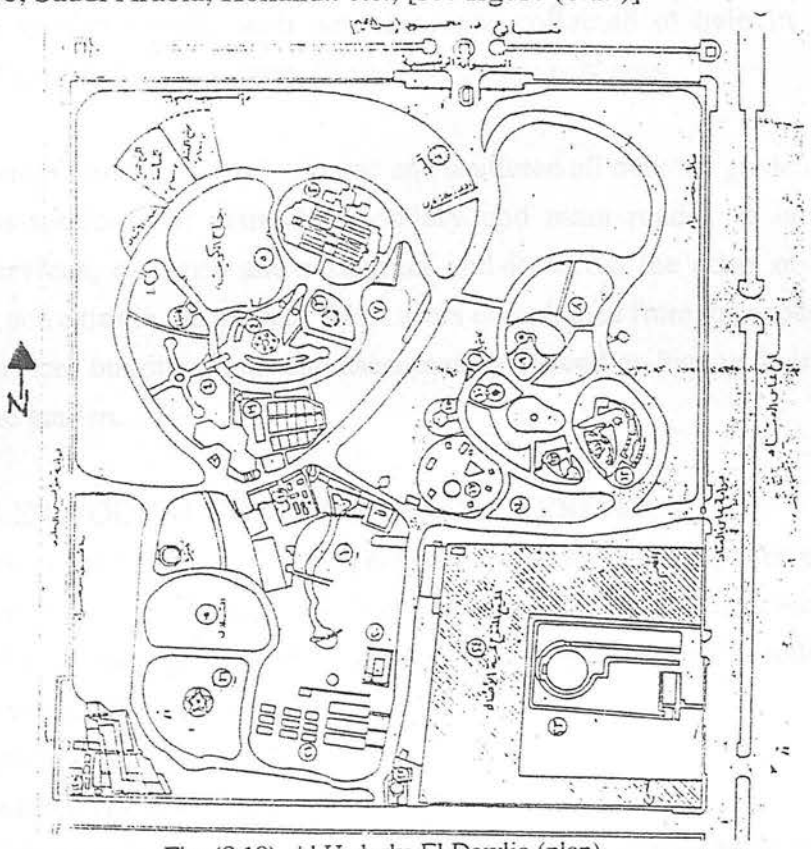


Fig. (8.19), Al Hadeeka El Dawlia (plan).

In a very general division, the garden is divided to four zones, the first by the north west is the Arab counties' zone. The second by the north east is the European countries' zone, while the third zone by the far south west is Egypt, New York, maintenance and administration buildings. The south east zone is the expected children garden, restaurant and existing water tanks. It was noticed in the design that the visitors' roads are

distributed in a pyramidal graduation to assure the required balance in the design. Also, the complete axial design was noticed in distributing the artistic pieces and statues which represent the cultural history of the county of each setting or zone along the visitors roads in a homogenous and continuous way.

The garden has three main entrances, the gate by the north and the other two exist by the west and east. Actually, the north gate is the only one that is opened for entrance and exit while the ones by the west and east are opened just for exit. The official opening hours of the garden are different through the two main seasons of summer and winter. In summer it opens from 9 a.m. to 12 p.m., while in winter as a garden it opens from 9 a.m. to 5 p.m. and the restaurants and cafeterias till 9 p.m. Tuesdays are the official holidays when maintenance takes place. Except of Fridays, Sundays and official holidays, the entrance fees for over 6 years old is 50 PT.. As for the holidays, Fridays and Sundays the fees is one pound. In all terms 25% discount is offered for groups and trips. In evaluating such fees it is considered not expensive compared to the facilities in the garden. Moreover extra money is paid for using some facilities within the garden as peddling boats, food, entrance of the zoo zone and the use of the children equipment. Through the interview held with the garden's staff, such payments are collected to help in paying the maintenance of the existing equipment in addition to any new ones.

Subsidiary services buildings are distributed and scattered all over the garden and also in the main cross-sections for visitor's secondary and main roads. It includes light commercial services, cafeteria and restaurant and it serves the areas of continuous movement and activities in the garden. Most users complained from the expensive goods paid in such services buildings[1], instead users mainly depend on buying their own goods from outside the garden.

8.2.2 PEOPLE'S SOCIO-ECONOMIC CHARACTERISTICS:

The second determinant of the recreation paradigm is the people or participants. This determinant will be studied through two scales, the first scale is the residents of the quarter, while the second represents the participants of the garden itself as follows:

8.2.2.1 The residents of Nasr City.

8.2.2.2 The users of Al Hadeeka El Dawlia.

8.2.2.1 The Residents of Nasr City:

The residents of Nasr City quarter could be mainly classified as low income, middle income and high income category. Children of Nasr City district attend schools, poly-techniques and colleges, and most parents are educated. The district is relatively one of the new districts of Cairo.

[1] As an example, a bottle of juice that usually costs 1 L.E. is sold in such shops for 2.5 L.E.

8.2.2.2 The Users of Al Hadeeka El Dawlia:

Al Hadeeka El Dawlia is a very popular garden used not only by the residents of its quarter, but also by Cairenes of most parts of Cairo. In summer, and specially in the after noon, Cairenes from middle class usually escape the heat to the garden. On the other hand, the garden is strongly attended in winter by school groups and trips from different districts of Cairo. Moreover, Al Hadeeka El Dawlia attracts all life-cycle stages, family, family/friend and individual to participate there.

8.2.3 THE ACTIVITIES TAKING PLACE:

The participated activities taking place in the case study will be studied through the two scales of the quarter and the site itself as follows:

8.2.3.1 The Quarter.

8.2.3.2 The Garden and Behaviour settings.

8.2.3.1 The Quarter:

The activities existing within the quarter are different than those in El Sayyida Zayinab Quarter. Coffee houses do not exist, but instead there are cafeterias, restaurant and take away food shop. Moreover, within the last year of this research, snooker clubs are noticed to spread in Nasr City. In the streets, except for the main ones, children play football and bicycles, [see figure (8.20)].

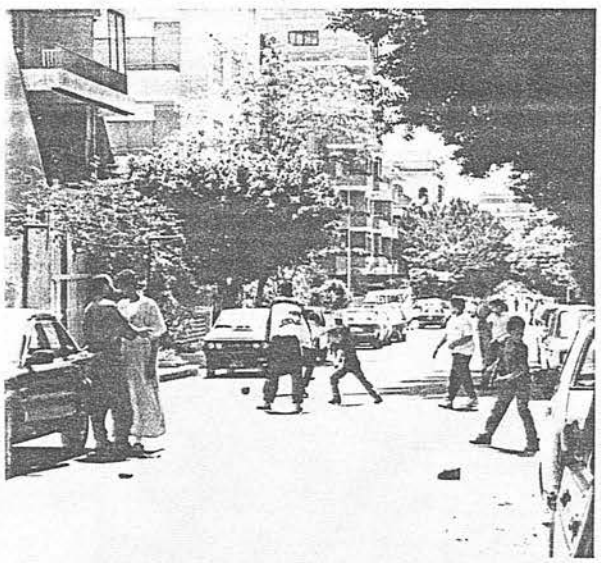


Fig. (8.20), children playing football in one of Nasr City streets.

8.2.3.2 The Garden and Behaviour Setting:

The concept of dividing the garden into behaviour settings in this case is different. The settings were almost divided through the division of the zones. Such zoning was designed so that each country could symbolise part of its culture in a miniature way. An observation was carried out through which the behaviour setting process was achieved. The existing division of the settings within the four areas was used.

Using such settings helps in making sure whether these settings are behaviourally considered separate according to the K 21 or not. The settings designed proved to be relatively but not totally separate behaviour settings, adding to these settings the routs of connecting and separating the zones. The children part and restaurants within the south east zone till October 1994 has not been established yet. Within this zone, the maintenance is located and is connected behaviourally to the settings in the south west zone.

Figure (8.21) and figure (8.22) shows the differences between dividing the settings behaviourally according to behaviour settings theory and the actual division of the planner. The activities taking place in the garden are mostly for enjoyment as picnicking, socialising, children using the playing equipment, the mini zoo and watching the performance. Playing football and cycling are forbidden in the garden, so they are participated by the north gate of the garden in the main street, [see figure (8.23)].

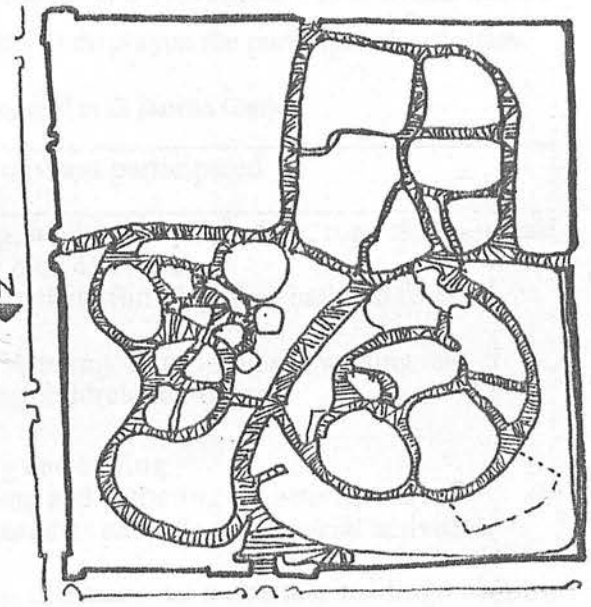


Fig. (8.21), The original division of areas in HD garden.

Three observation times were chosen in order to capture a diverse range of activities within the garden. According to the behaviour setting theory the type of participated activities and the density of users would vary within the different times. The first process of observation took place on Sunday the twenty second of August 1993 from 2 p.m. to 7 p.m. This was followed by a visit to the site on Monday the twenty third of August 1993 from 11.00 p.m. until 4.00 p.m.

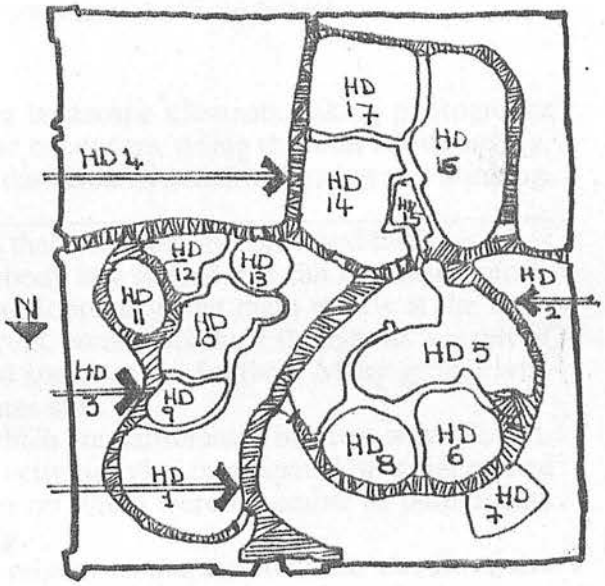


Fig. (8.22), K 21 division of settings and areas in HD garden .

The third time of observation was carried out on Friday the twenty seventh of August 1993 and started at 3.00 p.m. till 9.00 p.m. At the three observation times, weather was hot, the temperature was in the range of 30°c to 34 °c. Nearly ten minutes were spent by the gate of the garden in buying the tickets and asking questions.

Fig. (8.23) Teenagers playing football by the main gate of HD garden.

Moreover and beside the three times of observation the researcher visited the garden several times within the same month and in October and November 1994, which helped in enhancing the information obtained. Table (8.12) displayes the participated activities.

Table 8-12 Types of activities engaged in El Dawlia Garden

Categories of Activities and Patterns	Activities participated
Physical activities* (Mainly active)	- Running, walking, flying a kite, rope skipping and playing hide and seek. - Playing racket, fun play, free ball and football.
Physical activities as passive	- Sitting, standing, lying, singing, waiting and watching children and others.
Social and related activities** (Mainly passive)	- Shouting and talking - Picnicking and gathering as activities are participated as part of related social activities.
Cognitive activities (Mainly passive/One way)	- Knitting, listening to cassettes, reading, waiting and watching events and scenes.
Job's related activities*** (Mainly passive)	- Selling, serving and selling tickets.
Setting's related activities**** (Passive/Active)	-Climbing landscape elements, taking photographs riding the crazy cars, riding the mini taftaf, buying, feeding the animals, pedalling, eating and drinking.

* These activities refer to non organised sports that don't require space and facilities. It is worth mentioning that the garden does not embody any spaces that suit organised sports and games. Moreover, teenagers were playing football in the main streets at the three times of observation. In interviewing the players, comments were thought as a result of the lack of designed open spaces for organised sports as the football. Many groups who picnicked usually engaged in free play and games also.

** The social activities indicate to activities which are participated in a two way relation. Most participants who were engaged in social activities also participated in social related activities (picnicking and/or gathering). However, there were a number of participants who were mainly picnicking without socialising.

*** The job related activities are activities related to the maintenance circuit of the behaviour setting theory.

**** The distribution of such activities varies from one setting to the other depending on the facilities and landscape elements within each setting.

The following results of the information obtained from the observation were concluded:

THE FIRST AREA: THE ROUTES

The first area represents the main routes of the garden. These routes divide the areas and are divided into four settings, [see figure (8.24)].

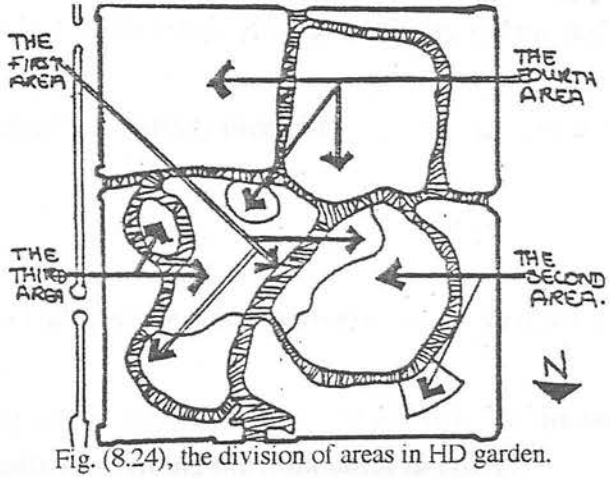


Fig. (8.24), the division of areas in HD garden.

A-1 Setting 1 (HD 1)

Location: The first setting represents the entrance route by the north west side of the garden, part of the green area by the east side of the route and the friends garden by the west side of the route [figure (8.25)]

Landscape elements: The materials used are concrete and grass. The equipment are in the form of a model for the garden, a garden clock, a memorial monument, an unsuitable wooden structure for bric-a-brac and the north gate. Wooden fixed and movable benches distributed in the route as landscape tools.

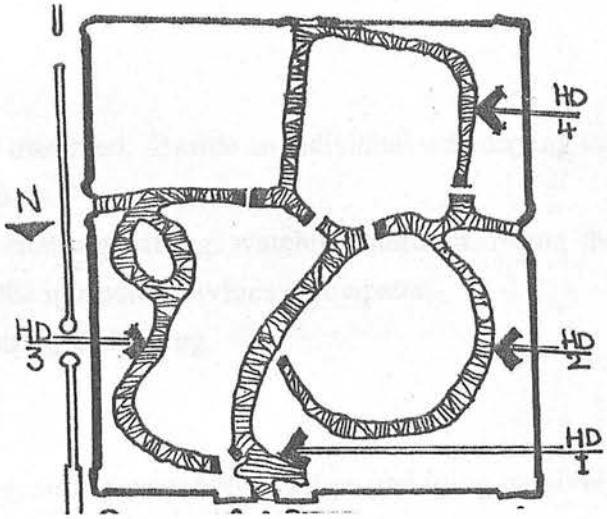


Fig. (8.25), the first setting HD 1.

Moreover there are lighting elements, white wood fence, palm trees by the west side and faeces trees by the east side. In the west side is the friends' garden, a route is illustrated in the grass where a variety of trees are planted with the side board to notify information about each tree.

Participants' socio-cultural characteristics: The setting includes nearly all stages of life-cycle, except the fourth stage. Females were more than males at both times of observation. At the third time of observation they were nearly the same. Most participants were adults and children followed by teenagers.

Participated Activities:

Date: 22/8/1993 **Time:** 2.10 p.m.

Forms of activities:

Individual: individuals were either sitting or walking alone. An adult was driving the mini taftaf.

Intrinsic: Intrinsic groups were involved in chatting, sitting, walking, riding the mini taftaf, watching the children and picnic.

Group: Groups of participants were chatting, sitting, picnicking, watching children and playing football.

Categories of activities:

Physical: Participants were walking or playing football actively, while passively they were sitting and watching the children.

Social and related: chatting, picnicking are the social participated activities in the setting.

Settings' related: a number of participants were riding the mini taftaf in HD 1.

Job's related: driving the mini taftaf and selling were the only job's related activities in setting HD 1.
Cognitive activities: were lying alone absorbed in their thoughts.

Date: 23/8/1993 **Time:** 11.10 a.m.
Forms of activities:
Individual: standing and lying alone were observed. Beside an individual was driving the mini taftaf and another was selling the tickets.
Intrinsic: taking photographs, standing, chatting, sitting, watching children, riding the mini taftaf, walking and picnicking were the intrinsic activities participated.
Group: groups were playing free ball, chatting and sitting.

Categories of activities:
Physical: participants were either standing, sitting, watching children and lying passively or walking and playing football actively.
Social and related: chatting and picnicking were observed in the setting.
Setting's related: riding the mini taftaf and taking photographs by the monument were the only setting's related activities participated in the setting.
Job's related: driving the mini taftaf and selling tickets were observed.
No cognitive activities were observed in the setting.

Date: 27/8/1993 **Time:** 3.10 p.m..
Forms of activities:
Individual: individuals were standing, reading, sitting, driving the mini taftaf and watching.
Intrinsic: sitting, walking, riding the mini taftaf and chatting were the intrinsic activities.
Group: playing cassettes, chatting, singing, playing football, walking, and eating or picnicking were the group activities participated.

Categories of activities:
Physical: reading, sitting, singing, playing cassettes and watching children are the passive physical activities, while playing football and walking are the active.
Social and related: participants were chatting and picnicking.
Cognitive activities: some participants were reading and others were watching the scene.
Setting's related: a number of participants were riding the mini taftaf in the setting.

Charts (8.37), (8.38) and (8.39) illustrate the relation between the categories of participated activities in setting HD 1 in the three times of observation.

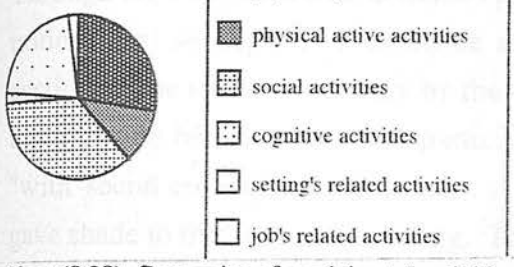


Chart (8.28), Categories of participated activities in setting HD 1 at the first time of observation

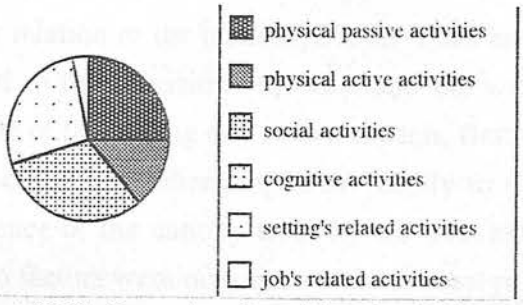


Chart (8.29), Categories of participated activities in setting HD 1 at the second time of observation.

Through comparing the three times of observation the followings were deduced: The second time of observation was the only time that did not include any cognitive activities. Moreover, at the third time of observation the physical activities in the passive form was the most participated, while at the two other times of observation both the social and physical passive were the topmost activities participated. At the three times of observation the job's related were the least followed by the active physical activities.

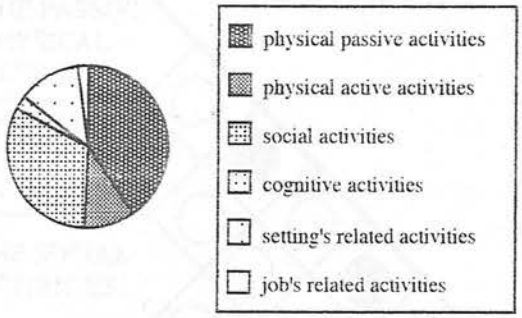


Chart (8.30), Categories of participated activities in setting HD 1 at the third time of observation.

Behaviour setting and the socio-physical aspects: the tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.13) illustrates such relation

	TOOLS			EQUIPMENT		
	sitting	learning	playing	authentic	ground	functional
PHYSICAL ACTIVITIES:	●	○	○	●	○	○
SOCIAL ACTIVITIES:	●	○	○	○	○	○
COGNITIVE ACTIVITIES:	○	○	○	○	○	○
SETTING'S RELATED ACTIVITIES:	●	○	○	○	○	○
JOB'S RELATED ACTIVITIES:	○	○	○	○	○	○

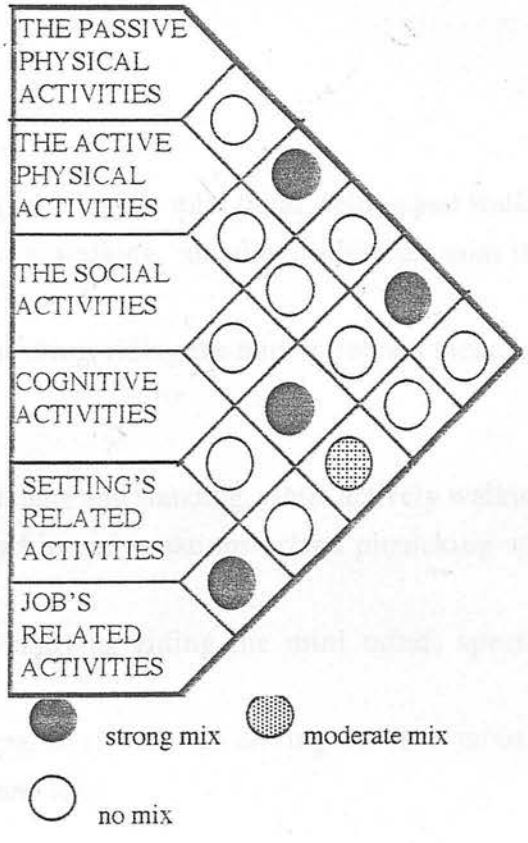
Table (8.13) Behaviour setting synomorphy, HD1.

○ were not examined ◔ Weak ◑ Moderate ● good

Through the observation of activities and their relation to the landscape tools it has been noticed that setting HD 1 could be separated to two divisions the east and the west sections. The success was only by the west side of the setting due to two aspects, firstly, the movable benches gave the participants the choice of directing them mostly to the "with"social component. Secondly, the existence of the canopy trees by the west side gave shade to this part of the setting. These two factors were not observed in the east part of the setting, besides benches were fixed and tented. Accordingly, in relating this to the behaviour synomorphy of the setting, the physical activities were good in terms of the tools and equipment, while the social and related were considered moderate. The setting's related activities were good for the existence of the mini train which mostly attracted the participants to ride. The rest of the activities were not strong enough to be examined.

The activity mix and package:

The activity mix within groups in setting HD 1 is showed in chart (8.31). The passive physical activities were strongly mixed with the social and settings related activities. Also within setting HD 1, the setting's related activities were strongly mixed with the social. Between groups of participants, the mix of activities was mainly between social, passive and settings' and job's related activities was strong. The social and physical passive activities represent the main activities of participation, the settings related considered a secondary activity. In terms of riding the mini train, the setting's related activities were considered a strong main activity while the rest could be called secondary.



Chart(8.31), The mix of participated activities within groups of participants, HD1.

A-2 Setting 2 (HD 2)

Location: Setting HD2 indicates to the south west end of the main route, [figure (8.24)]

Landscape elements: the materials used are concrete and grass. The equipment used are subsidiary services buildings at the beginning and end of the route and WCs. Tools were in the form of white wood fences and harmful iron, wire fences[1] and benches which are distributed by both sides of the route (types a, b1, b2, b3 and c), [see figure (8.26)].

[1] During the winter visits to the garden in 1994 such harmful fences were being replaced by wooden ones.

Participants' socio-cultural characteristics: Adults were occupied by passive physical activities, while teenagers and children were more involved in the active. As the previous setting, setting HD 2 includes nearly all life-cycle stages except for the old age. On contrast, the teenagers were more observed in this setting and girls lesser than boys but still women were more than men at the three times of observation.

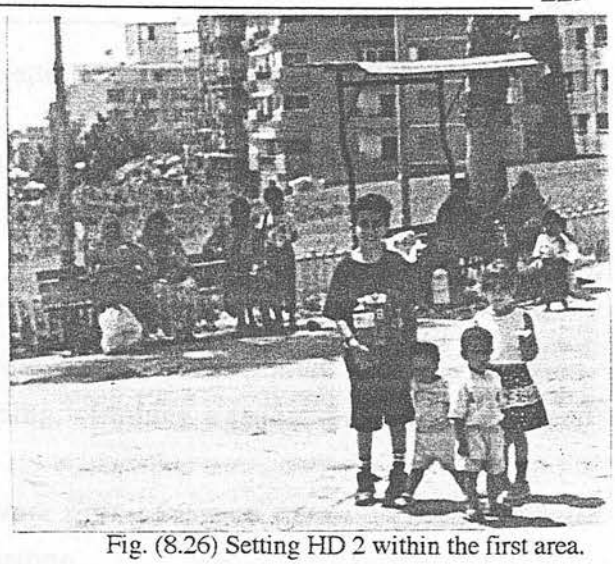


Fig. (8.26) Setting HD 2 within the first area.

Participated Activities:

Date: 22/8/1993 **Time:** 2.30 p.m.

Forms of activities:

Individual: individuals were sitting, watching, driving the mini taftaf, selling and walking.

Intrinsic: intrinsic groups were chatting, sitting, walking, standing, riding the mini taftaf and drinking.

Group: groups of friends and families were chatting, riding the mini taftaf and picnicking.

Categories of activities:

Physical: passively children were sitting, watching and standing, while actively walking.

Social and related: participants were engaged in conversations or/and picnicking while sitting and walking.

Setting's related: most participants were enjoying riding the mini taftaf, specially children.

Job's related: an individual from the maintenance circuit was driving the mini taftaf. A number of persons were selling food, drinks and toys.

Date: 23/8/1993 **Time:** 11.30 a.m.

Forms of activities:

Individual: walking, sitting and watching are the individual activities participated.

Intrinsic: intrinsic groups in the setting were chatting, sitting, walking, standing, riding the mini taftaf and buying fast food.

Group: groups were chatting, riding the mini taftaf, sitting, and walking in setting HD 2.

Categories of activities:

Physical: participants were either passively sitting standing, and watching or walking actively.

Social and related: most of the participants were talking while engaged in other activities.

Setting's related: buying fast food was the setting's related activity participated in setting HD 2.

Job's related: member of the maintenance circuit were selling food and toys.

Date: 27/8/1993 **Time:** 3.35 p.m..

Forms of activities:

Individual: participants who were alone were riding the mini taftaf, watching children, sitting on benches and ground, lying, reading, climbing a landscape structure[1] or/and eating.

Intrinsic: Intrinsic groups in the settings were riding the mini taftaf, playing handball, walking, standing, waiting, sitting or/and chatting.

Group: groups were riding the mini taftaf, walking, sitting, picnicking, singing, standing, chatting and fun playing in setting HD 2.

Categories of activities:

Physical: some participants were watching children, sitting, by secondary settings[2], standing or waiting passively, while actively others were playing free ball, walking and fun playing.

Social and related: most of the participants were chatting and picnicking while engaged in other activities.

Cognitive: some participants were reading in the setting.

Setting's related: riding the mini taftaf was observed in setting HD 2.

Job's related: driving the mini taftaf and selling food were participated by members of the maintenance circuit.

Charts (8.32), (8.33) and (8.34) illustrate the relation between the categories of participated activities in setting HD 2 at the three times of observation.

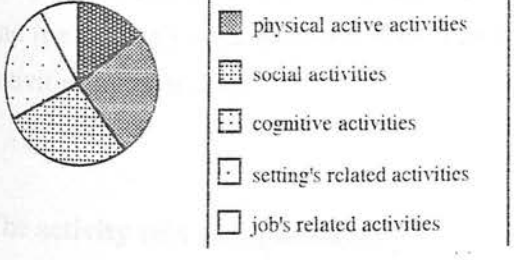


Chart (8.32), Categories of participated activities in setting HD 2 at the first time of observation

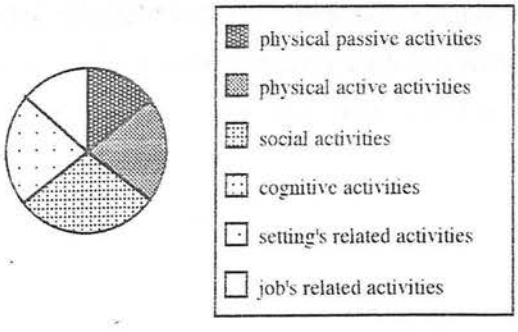


Chart (8.33), Categories of participated activities in setting HD 2 at the second time of observation.

[1] Such landscape elements in HD 2 are harmful for children to climb.

[2] Parents were watching their children sitting on secondary seats by some harmful plants.

In general, at the three times of observation, the majority of participated activities were the social and physical active activities. They were followed by the setting's related activities and the passive physical activities. The cognitive activities were only observed at the third time of observation and were the least participated.

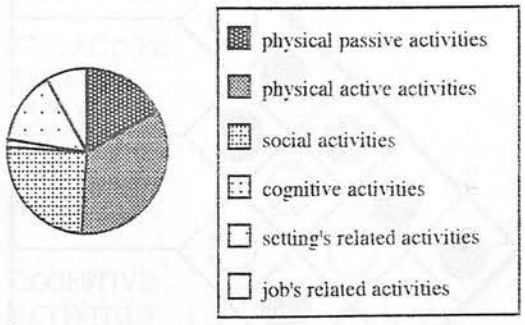


Chart (8.34), Categories of participated activities in setting HD 2 at the third time of observation.

Behaviour setting and the socio-physical aspects of the setting: The tools and equipment were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.14) shows such relation.

	TOOLS			EQUIPMENT		
	sitting	learning	playing	authentic	ground	functional
PHYSICAL ACTIVITIES:	●	○	○	●	●	●
SOCIAL ACTIVITIES:	●	○	○	○	○	○
COGNITIVE ACTIVITIES:	●	○	○	○	○	○
SETTING'S RELATED ACTIVITIES:	●	○	○	●	○	○
JOB'S RELATED ACTIVITIES:	●	○	○	●	○	●

Table (8.14) Behaviour setting synomorphy, HD 2.

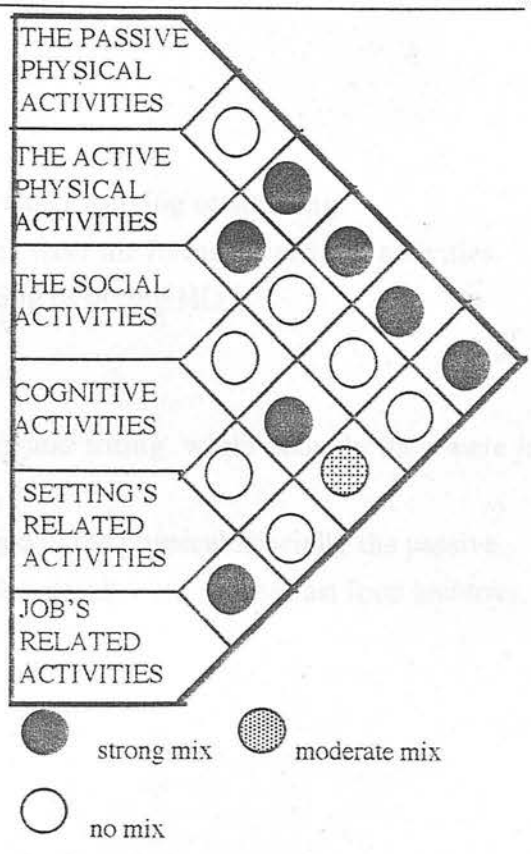
○ were not examined ● Weak ● Moderate ● good

The sitting tools location and shape resulted a good relation with the physical , cognitive and job's related activities. On the other hand, it resulted a weak relation with the social and the setting's related activities. The shape of the setting afforded the active physical activities to exist.

The activity mix and package:

Within groups the mix in participated activities is illustrated in chart (8.35).

The physical passive activities were strongly mixed with all other activities within groups except with active. The active physical is only mixed strongly with the social. The social and related activities were strongly mixed with the setting's related while moderately with the job's related activities. Finally the job's related activities were strongly mixed with the setting's related activities. The mix between groups is strong between the passive physical and all other activities. Also the social is strongly mixed between groups of participants with all the other activities except for the cognitive. In general, the physical activities were considered main activities in the setting, the rest represented the secondary.



Chart(8.35), The mix of participated activities within groups of participants, HD 2.

A-3 Setting 3 (HD 3)

Location: Setting HD 3 indicates to the east side of the main route, [figure (8.24)]

Landscape elements: The materials used in the setting is concrete and grass. The equipment used in setting HD 3 are symbolised by the use of subsidiary service shop are scattered in the setting, metal structure and iron fences are fencing the other areas. The subsidiary shops are by the north east part of the route, [figure (8.27)].

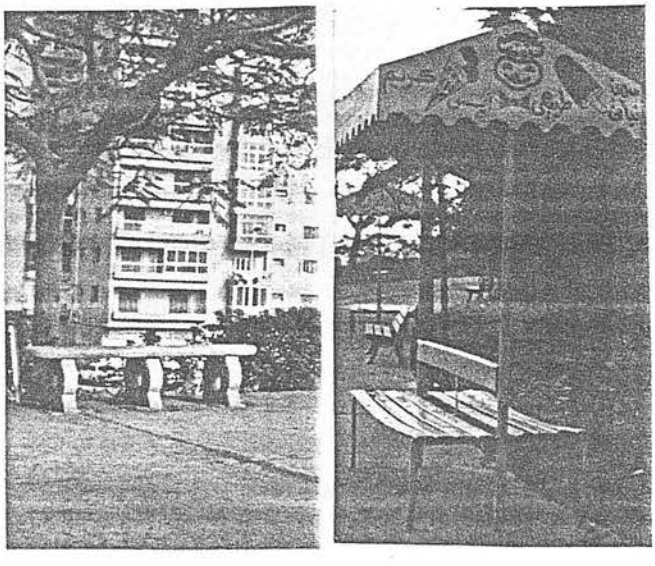


Fig. (8.27) landscape tools and equipment in setting HD 3.

Tools as benches are distributed by both sides of the route, the mosaic fixed are by the east and the wooden are by the west.

Participants' socio-cultural characteristics: Adults represent the priority of participants in setting HD 3. Although it included the four stages of life-cycle stage, the first and last stages were not significantly observed. Men within the setting represent the priority. In general, the setting was not considered full or crowded.

Participated Activities:

Date: 22/8/1993 **Time:** 2.45 p.m.

Forms of activities:

Individual: participants who were alone were either walking or standing.

Intrinsic: walking, chatting, chatting and sitting were the forms of intrinsic activities.

Group: groups were walking, chatting and sitting in setting HD 3.

Categories of activities:

Physical: passively participants were standing and sitting, while actively they were just walking.

Social: participants were chatting while engaged in the physical specially the passive.

Job's related: some members of the maintenance circuit were selling fast food and toys.

No cognitive activities were observed.

Date: 23/8/1993 **Time:** 11.55 a.m.

Forms of activities:

Individual: individuals were just sitting.

Intrinsic: intrinsic groups were engaged in chatting, picnicking and sitting

Group: groups were walking, chatting and sitting.

Categories of activities:

Physical: participants were passively sitting while actively they were just walking.

Social and related: participants were chatting and picnicking while they were engaged in the physical passive activities.

Job's related: some members of the maintenance circuit were selling fast food and toys.

Date: 27/8/1993 **Time:** 4.00 p.m.

Forms of activities:

Individual: individuals were walking or selling in setting HD 3.

Intrinsic: intrinsic groups were playing, walking, sitting, chatting, standing, buying and running.

Group: groups were playing, running, chatting and walking in setting HD 3.

Categories of activities:

Physical: individuals were sitting and standing passively or walking, running and playing actively

Social and related: A number of participants were chatting in setting HD 3.

Setting's related: participants were buying some food in setting HD 3

Job's related: a number of people who are related to the maintenance circuit were selling toys and fast food.

Charts (8.36), (8.37) and (8.38) illustrate the relation between the categories of participated activities in setting HD 3 in the three times of observation.

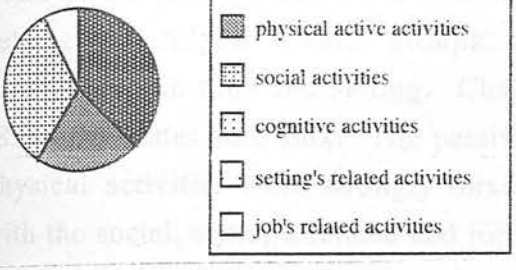


Chart (8.36), Categories of participated activities in setting HD 3 at the first time of observation

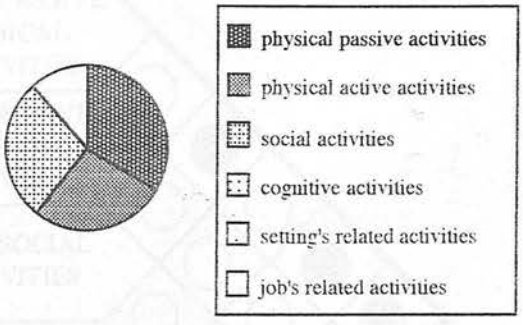


Chart (8.37), Categories of participated activities in setting HD 3 at the second time of observation.

The three charts indicated to the followings: The differences between the participated activities at the three times of observation were not remarkable. The social and physical passive were the most participated activities followed by the physical passive and finally the job's related activities.

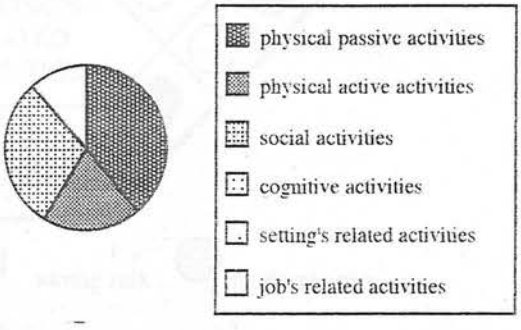


Chart (8.38), Categories of participated activities in setting HD 3 at the third time of observation.

Behaviour setting and the socio-physical aspects: the tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.15) illustrates such relation.

	TOOLS			EQUIPMENT		
	sitting	learning	playing	authentic	ground	functional
PHYSICAL ACTIVITIES:	●	●	○	●	●	●
SOCIAL ACTIVITIES:	◍	○	○	●	○	◍
COGNITIVE ACTIVITIES:	○	○	○	○	○	○
SETTING'S RELATED ACTIVITIES:	○	○	○	○	○	○
JOB'S RELATED ACTIVITIES:	◍	○	○	●	○	●

Table (8.15) Behaviour setting synomorphy, HD 3.

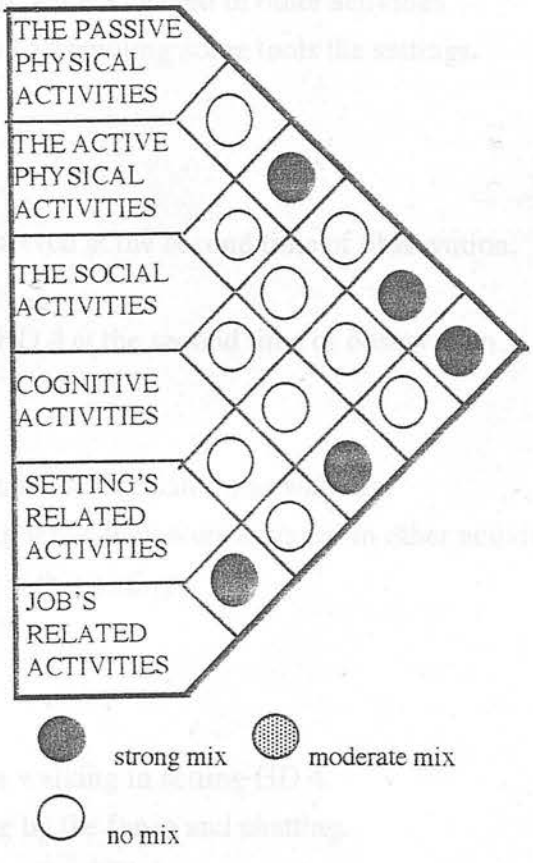
○ were not examined ◍ Weak ● Moderate ● good

Except of the few benches which are distributed on the route, the setting does not afford the social activities to exist through the sitting tools. The "without" concept is stronger

than the with. On the other hand, the presence of the sitting tools afforded the physical passive activities to exist, while the active pattern was encouraged by the shape of the setting.

The activity mix and package:

Some of the participated activities in the setting are mixed within groups of participation in time and setting. Chart (8.39) illustrates such mix. The passive physical activities were strongly mixed with the social, setting's related and job's related activities. While the job's related activities beside they being mixed strongly with the passive physical , they are also strongly mixed with the cognitive and job's related activities. Between groups all participated activities were mixed in time and setting. The social related activities were the strongest ones observed in the setting. The passive physical activities represent the main, while the rest of the activities represent secondary ones.



Chart(8.39), The mix of participated activities within groups of participants, HD 3.

A-4 Setting 4 (HD 4):

Location: The south route of the garden, represents setting HD 4, [see figure (8.24)].

Landscape elements: concrete, and grass are the materials used in the ground. The tools used were the iron fences which are harmful. The equipment used in the setting are the shrubs and vertical structure.

Participants' socio-cultural characteristics: setting HD 4 is the least used setting with relation to the other three settings in the first area. Participants were mostly teenagers and the fourth stage of life-cycle was not observed at any time. The differences between sex was nearly balanced at the three times of observation.

Participated Activities:

Date: 22/8/1993 **Time:** 3.10 p.m.

Forms of activities:

Individual: participants who were alone were walking in setting HD 4.

Intrinsic: intrinsic groups were maintaining, walking and chatting.

Patterns of activities:

Physical: the physical activities were only in the active pattern as walking.

Social and related: participants were chatting while engaged in other activities.

Job's related: participants were mending and assembling some tools the settings.

Date: 23/8/1993 **Time:** 12.15 p.m.

Forms of activities:

Individual: no individual activities were observed at the second time of observation.

Intrinsic: friends were walking and chatting.

Group: no groups were observed in setting HD 4 at the second time of observation.

Categories of activities:

Physical: the physical activities were only in the active pattern as walking.

Social and related: participants were chatting while they were engaged in other activities.

Job's related: some gardeners were working at this setting.

Date: 27/8/1993 **Time:** 4.25 p.m.

Forms of activities:

Individual: individuals who were alone were walking in setting HD 4.

Intrinsic: friends groups were walking, siting by the fence and chatting.

Group: groups were running and playing in setting HD 4.

Categories of activities:

Physical: participants were sitting passively, while actively they were running and playing.

Social and related: intrinsic groups were talking.

Charts (8.40), (8.41) and (8.42) illustrate the relation between the categories of participated activities in setting HD 4 in the three times of observation.

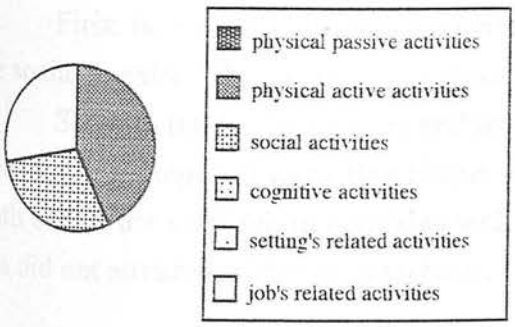


Chart (8.40), Categories of participated activities in setting HD 4 at the first time of observation

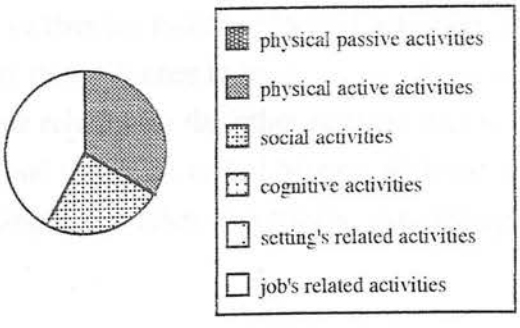


Chart (8.41) Categories of participated activities in setting HD 4 at the second time of observation.

The physical activities in the passive form were only observed at the third time of observation. On the other hand the job's related activities were not observed at the third time of observation. In general, it was only the social and physical activities that seem to be participated at the three times of observation. Accordingly setting HD 4 is devoted to the social and physical passive activities.

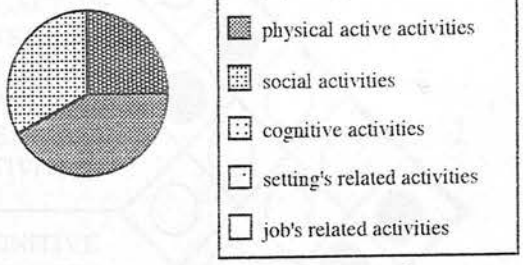


Chart (8.42), Categories of participated activities in setting HD 4 at the third time of observation.

Behaviour setting and the socio-physical aspects: the tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.16) illustrates such relation

	TOOLS			EQUIPMENT		
	sitting	learning	playing	authentic	ground	functional
PHYSICAL ACTIVITIES:	◔	○	○	●	●	○
SOCIAL ACTIVITIES:	◔	○	○	○	○	○
COGNITIVE ACTIVITIES:	○	○	○	○	○	○
SETTING'S RELATED ACTIVITIES:	○	○	○	○	○	○
JOB'S RELATED ACTIVITIES:	○	○	○	○	○	○

Table (8.16) Behaviour setting synomorphy, HD 4.

○ were not examined ◔ Weak ◕ Moderate ● good

In terms of the participated activities and their relation to the landscape tools and equipment it has been found that the setting was the least used due to the followings:

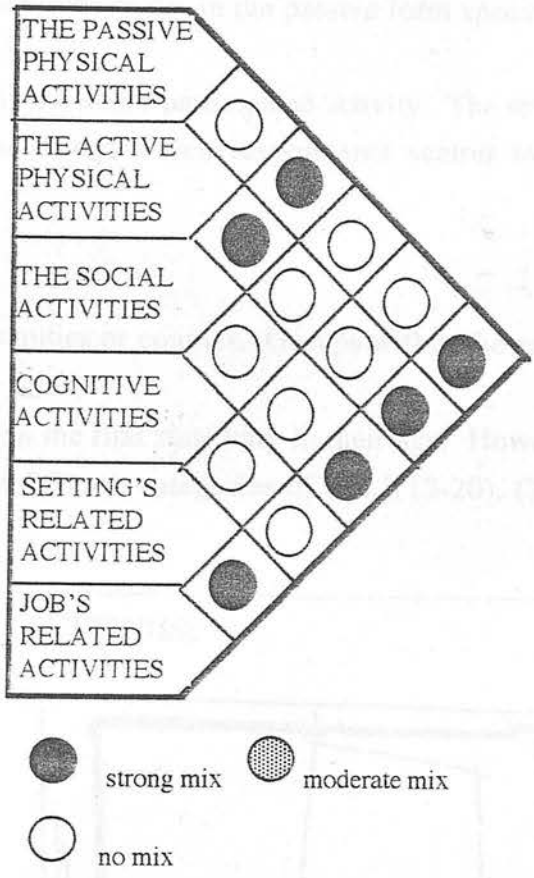
First: the sitting tools did not encourage neither the passive physical activities nor the social to exist. The authentic equipment were the only ones to have good evaluation.

Second: the location of the setting and its relation to the other settings was very weak. The setting over look Ben Hazim street and the south end of Moenis Al Khadim. Both streets are very quit in activities with relation to the other two streets. Accordingly this did not attract participants' attention .

The activity mix and package:

The activity mix within groups in setting HD 4 is illustrated in chart (8.43). The physical activities in both patterns were strongly mixed with the social and the job's related activities. The job's related activities were strongly mixed with the setting's related and social beside the physical activities. The mix between groups was strong between the job's related activities and all other participated activities.

In general the maintenance circuit did not mix with the operation circuit. The main activity participated was devoted to the job's related activities.



Chart(8.43), The mix of participated activities within groups of participants, HD 4.

Notes of observation within the first area:

Environmental Aspects:

- The distribution of the sitting elements (benches) has no design criteria. A setting may include a various types of benches fixed in any place.
- The types of landscape elements within the settings of the first zone have no common style or design in between.
- During most times of observation, the west side of setting HD 1 was used more than the east. Participants seem to prefer the movable benches were they allocate them according to their use which the west side fulfil.

Participated Activities:

- In setting HD 2 and beside the children's area parents were sitting either on the ground or on the sloped area[1] facing setting HD 7. Parents were involved in secondary activities as picnicking and chatting, but the main activity was watching and accompanying children.
- In setting HD 2 children were climbing harmful landscape elements. This could be due to the behaviour of children or for the entrance fees required to enter the children play area.

[1] Participants were sitting beside agave americana plants which are considered harmful types of plants for users.

- It was noticed that most activities were in the passive form specially the social activities as chatting.
- In setting HD 1 walking is the major participated activity. The setting is the main route of entrance from which respondents scatter to other settings.

Participants:

- Most participants were families or couples. Groups within the zone are distributed to sub groups.
- The participants existing in the first zone vary in their age. However, it is noticed that the third and fourth categories of age [(13-20), (21-45)] represent the majority.

THE SECOND AREA : NORTH WEST SETTINGS:

The second area was divided according to K 21 into four settings. The settings are illustrated in figure (8.28).

B-1 Setting 5 (HD 5)

Location: Setting HD 5 is represented by El Emirate and Saudi Arabian setting, by the north west side of the garden [figure (8.28)]

Landscape elements: EL Emirate: the materials used are red and blue patterned bricks and grass. The equipment are represented by a metallic bridge, canopy trees, fixed tent structure with wooden movable benches.

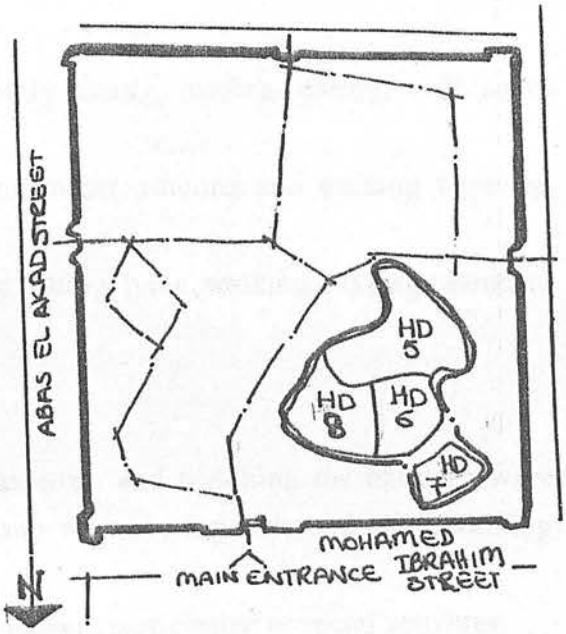


Fig. (8.28), the four settings in the second area.

A fountain made of mosaic and ceramic tiles in the shape of an Arabian kettle and cup, [figure (8.29)]. The tools are the iron and wood fences beside the lighting structure. Saudi Arabian: the materials used are stones, concrete, grass and dust. Tools and equipment are in the form of built-in flower boxes of stones, faeces trees, shrubs, water pool, and lighting structures.

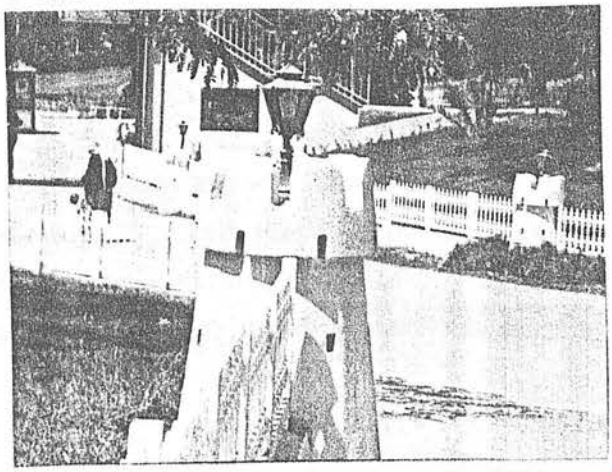


Fig. (8.29), The landscape tools in the Emirate setting.

Participants' socio-cultural characteristics: Teenagers represent the majority of participants nearly at the 3 times of observation. A balance in sex difference was noticed.

Participated Activities:

Date: 22/8/1993 **Time:** 3.35 p.m.

Forms of activities:

Individual: alone, individuals were sitting and reading.

Intrinsic: intrinsic groups were sitting, chatting, eating, walking and running.

Group: sitting, walking, chatting and fun playing were the group activities participated.

Categories of activities:

Physical: participants were sitting passivley & walking, running, and fun playing actively.

Social and related: participants were chatting or and picnicking.

Cognitive: a participant was reading at the first time of observation.

Date: 23/8/1993 **Time:** 12.35 p.m.

Forms of activities:

Individual: individual participants were mainly sitting, reading, eating, walking or watching the children.

Intrinsic: sitting, chatting, picnicking, playing racket, running and walking were the intrinsic activities participated.

Group: groups of participants were fun playing, sitting, lying, walking, playing cassettes, singing and chatting.

Categories of activities:

Physical: sitting, eating, singing, playing cassettes, and watching the children were passively participated, while actively participants were playing racket, running, walking and fun playing.

Social related: picnicking, gathering and chatting were participated as social activities.

Cognitive: a few participants were reading at the second time of observation.

Date: 27/8/1993 **Time:** 4.45 p.m.

Forms of activities:

Individual: individuals were sitting, watching views, walking and watching the children.

Intrinsic: sitting, chatting, walking, skipping the rope, free ball, playing hide and seek, picnicking, running, standing and reading were the forms of intrinsic activities.

Group: groups in setting HD 5 were sitting, fun playing, walking, standing and chatting.

Categories of activities:

Physical: participants were passively sitting and watching children. Actively they were walking, fun playing, rope skipping, playing free ball, playing hide and seek and running.

Social and related: participants were picnicking and chatting.

Cognitive: a few participants were reading and watching scenes.

Charts (8.44), (8.45) and (8.46) illustrate the relation between the categories of participated activities in setting HD 5 in the three times of observation.

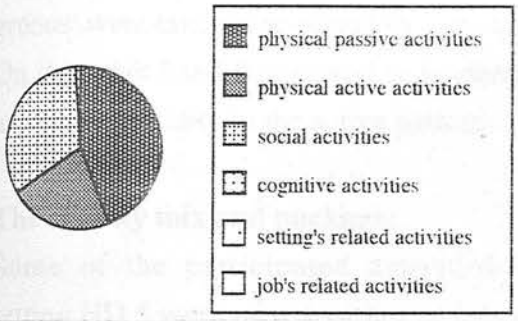


Chart (8.44), Categories of participated activities in setting HD 5 at the first time of observation

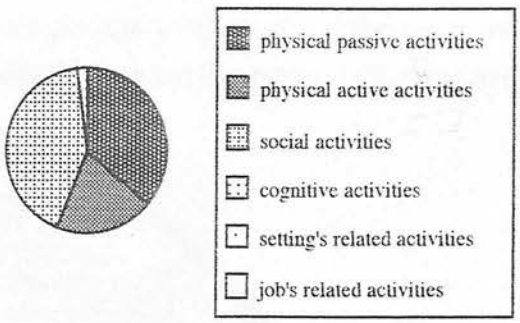


Chart (8.45), Categories of participated activities in setting HD 5 at the second time of observation.

The three times of observation have nearly the same participated activities by the same order. The social activities were by all means top high followed by the passive physical activities, then active physical and finally the cognitive activities. The only difference was at the third time of observation when both the passive and active physical activities were balanced.

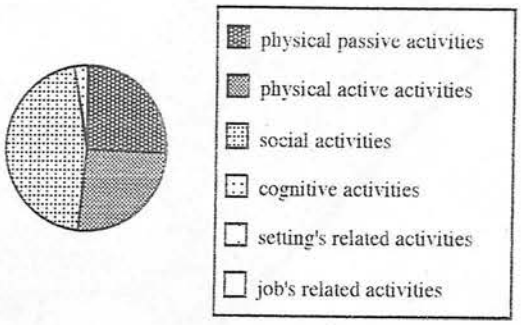


Chart (8.46), Categories of participated activities in setting HD 5 at the second time of observation.

Behaviour setting and the socio-physical aspects: the tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.17) illustrates such relation

	TOOLS			EQUIPMENT		
	sitting	learning	playing	authentic	ground	functional
PHYSICAL ACTIVITIES:	●	○	●	●	●	○
SOCIAL ACTIVITIES:	●	○	○	●	●	○
COGNITIVE ACTIVITIES:	●	○	○	●	○	○
SETTING'S RELATED ACTIVITIES:	○	○	○	○	○	○
JOB'S RELATED ACTIVITIES:	○	○	○	○	○	○

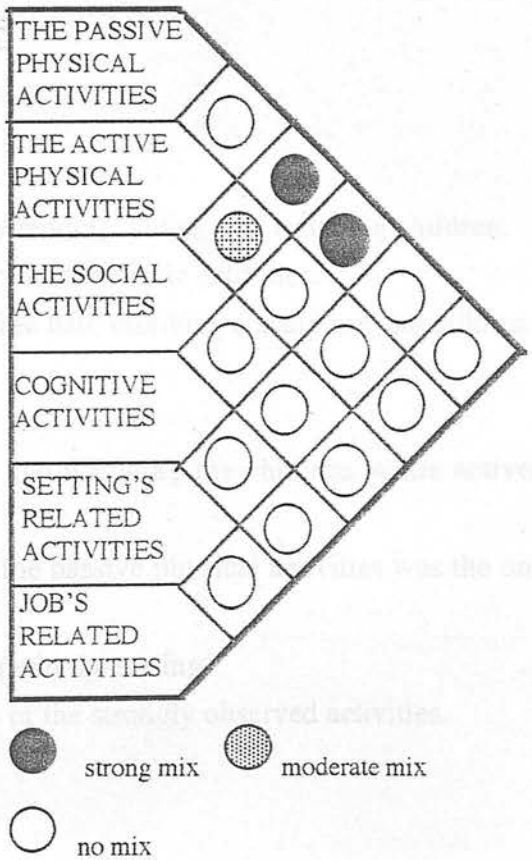
Table (8.17) Behaviour setting synomorphy, HD 5.

○ were not examined ● Weak ● Moderate ● good

The sitting tools were in good in setting HD 5 in terms of the physical activities (specially the passive), social and related activities (their arrangement offered a "with" component) and cognitive activities (the semi isolated parts in the setting in addition to the "without" arrangement of the tools). Moreover, the authentic equipment were also good. Trees and greens were taken care of and the setting as a whole symbolises the style of the countries. On the other hand the ground is moderate and sometimes weak in terms of the physical activities specially in the active pattern.

The activity mix and package:

Some of the participated activities in setting HD 5 were mixed within groups of participants in time and space. Chart (8.47) illustrates the mix of activities within the groups. The job's and setting's related activities did not exist at all during the times of observation. The physical passive activities were strongly mixed with both the social and cognitive, while the active pattern of the physical activities was moderately mixed only with the social. The mix between groups who were participating was only between the passive and social. The physical activities and the social are considered main activities while the cognitive activities are secondary.



Chart(8.47), The mix of participated activities within groups of participants, HD 5.

B-2 Setting 6 (HD 6)

Location: El Kuwait Setting by the north west side of the garden represents setting HD 6, [see figure (8.28)].

Landscape elements: The materials used were squared patterned red tiles, red brick steps and grass. The tools and equipment were in the form of brick built in benches with mosaic seat, granite structure, wood louvers with climbing plants for shades and lighting structure, [see figure (8.30)].

Fig. (8.30), The landscape tools in setting HD 6.

Participants' socio-cultural characteristics: This setting is one of the most favourable settings in the garden. At the three times of observation it was occupied with participants besides, most categories were participated at the three times. At the first time of observation, teenagers represented the majority, they were mostly involved in intrinsic activities and engaged in friends group. At the third time of observation families, specially the nuclear, represented the majority. It was only at the second time of observation that mothers represented the majority within the setting. The first three stages of life-cycle were mainly observed while the fourth was not at all noticed at any time.

Participated Activities:

Date: 22/8/1993 **Time:** 3.55 p.m.

Forms of activities:

Individual: individual participants were mainly reading, sitting and watching children.

Intrinsic: sitting and chatting were the only forms of intrinsic activities.

Group: groups were mostly walking, playing free ball, climbing a sculpture and talking.

Categories of activities:

Physical: passively, participants were sitting and watching the children, while actively they were playing free ball.

Social and related: chatting while involved in the passive physical activities was the only social activity observed.

Cognitive: a few participants were reading alone in the setting.

Setting related: climbing the structure was one of the strongly observed activities.

Date: 23/8/1993 **Time:** 1.00 p.m.

Forms of activities:

Individual: individuals who were alone were mostly engaged in flying a kite, climbing the sculpture, lying on the grass, sitting and reading.

Intrinsic: intrinsic groups were participating in taking photographs, sitting, fun playing, chatting, walking, watching the children and running.

Group: groups of participants were watching the children, chatting, running, climbing the sculpture, sitting, and picnicking.

Categories of activities:

Physical: physically participants were lying, sitting and watching the children, while actively they were flying a kite, running and fun playing

Social and related: chatting and picnicking were the only social related activities participated in setting HD 6

Cognitive: an individual was reading in the setting.

Settings' related: climbing the structure was observed at the second time of observation.

Date: 27/8/1993 **Time:** 5.10 p.m.

Forms of activities:

Individual: lying on the benches, sitting, reading, bicycling, picnicking and watching the children and others were the participated activities by participants who were alone.

Intrinsic: intrinsic groups were mostly sitting, chatting, watching the children, walking, fun playing, climbing the structure and running.

Group: groups were playing cassettes, picnicking, fun playing, running and climbing the sculpture in setting HD 6.

Categories of activities:

Physical: sitting and watching others and children were the only physical passive activities. Walking, bicycling, climbing the structure and fun playing were the physical in the active pattern.

Social and related: picnicking and chatting are the only social participated activities in the setting.

Cognitive: playing cassettes and reading were participated as cognitive activities.

Settings' related: some participants were climbing the structure.

Charts (8.48), (8.49) and (8.50) illustrate the relation between the categories of participated activities in setting HD 6 in the three times of observation.

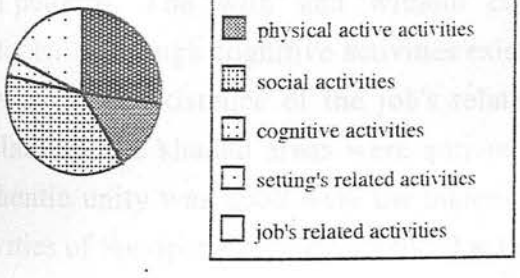


Chart (8.48), Categories of participated activities in setting HD 6 at the first time of observation

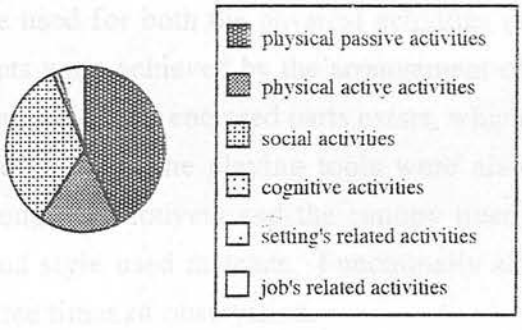


Chart (8.49) Categories of participated activities in setting HD 6 at the second time of observation.

The sequence of the categories participated in setting HD 6 at the three times of observation was the same. The priority of participation was for the social followed by the physical passive. Subsequent these two categories were the active physical activities then the setting's related and finally the cognitive activities which were the least.

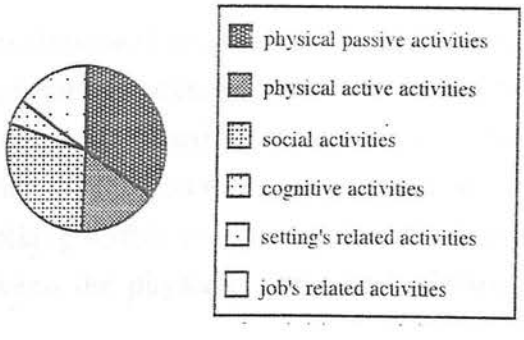


Chart (8.50), Categories of participated activities in setting HD 5 at the third time of observation.

Behaviour setting and the socio-physical aspects: the tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.18) illustrates such relation

	TOOLS			EQUIPMENT		
	sitting	learning	playing	authentic	ground	functional
PHYSICAL ACTIVITIES:	●	○	●	●	●	●
SOCIAL ACTIVITIES:	●	○	○	○	○	●
COGNITIVE ACTIVITIES:	●	○	●	○	○	●
SETTING'S RELATED ACTIVITIES:	●	○	○	○	○	●
JOB'S RELATED ACTIVITIES:	○	○	○	○	○	○

Table (8.18) Behaviour setting synomorphy, HD 6.

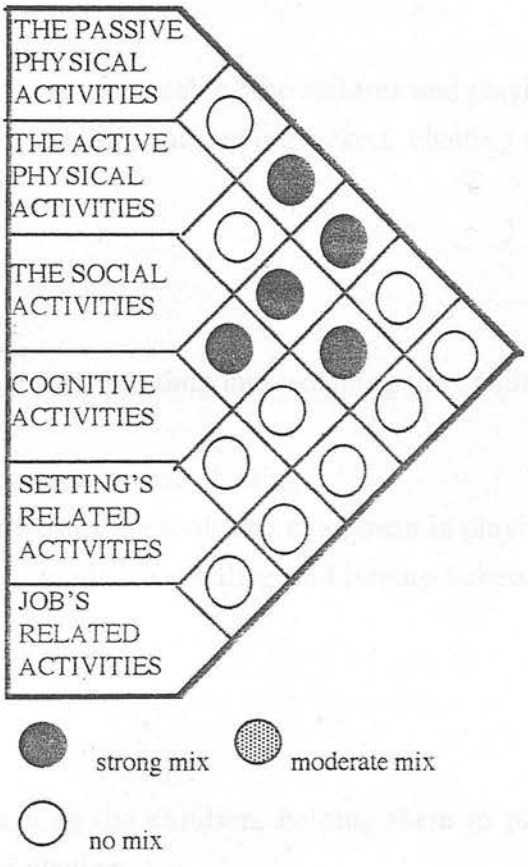
○ were not examined ◍ Weak ◍ Moderate ● good

Although the sitting tools were fixed and built in, such tools were good in terms of the participated activities in the setting. They were used for both the physical activities in both patterns. The "with" and "without" concepts were achieved by the arrangement of the tools. Although cognitive activities existed no hidden or enclosed parts exists, which prevented the existence of the job's related activities. The playing tools were also available. The shaded areas were noticed through the louvers and the canopy trees. Authentic unity was good were the materials and style used matches. Functionally all activities of the operating circuit existed at the three times of observation.

The activity mix and package:

The activity mix within groups in setting HD 6 is illustrated in chart (8.51). The passive physical activities were strongly mixed with the social and cognitive. The active physical activities were strongly mixed with the setting's related activities e.g. climbing the structure. Finally the cognitive activities were strongly mixed with the social and active, e.g. playing some cassettes while playing and talking within groups. On the other hand the mix between groups was very strong between the physical, social and cognitive activities.

The physical activities could be considered main. One of the most important secondary activities were the social.



Chart(8.51), The mix of participated activities within groups of participants, HD 6.

B-3 Setting 7 (HD 7)

Location: The children play area by the north west part of the garden represents setting HD 7 [see figure (8.28)].

Landscape elements: the materials used in the settings were sand, brick and stone. The tools and equipment were represented by some metallic colourful playing equipment, as slides, swings, climbing structures... etc., water taps, wooden coloured fence, palm and canopy trees, lighting instruments and benches. Tickets for entering the setting were sold by the gate, [see figure (8.31)].

Participants' socio-cultural characteristics: The majority of participants were by all means children. Adults were few, they were mainly beside the setting. Boys were more than girls at the three times of observation. In general it is also one of the mostly occupied settings at the three times of observation. The setting was considered crowded at the third time of observation were a queue was observed for entrance.

Fig. (8.31), the children's area setting HD 7

Participated Activities:

Date: 22/8/1993 **Time:** 3.55 p.m.

Forms of activities: [1]

Individual: individuals were sitting, standing, walking, watching the children and playing.

Intrinsic: intrinsic groups were eating, playing, selling and buying tickets, chatting and watching the children.

Group: groups were only playing.

Categories of activities:

Physical: passively participants were mostly sitting, standing and watching the children. Actively they were walking and playing.

Social related: children and adults were eating, shouting and chatting.

Setting's related: children and some adults were using the tools and equipment in playing.

Job's related: members from the maintenance circuit were selling and buying tickets by the entrance of the setting.

Date: 23/8/1993 **Time:** 1.20 p.m.

Forms of activities:

Individual: sitting, waiting by the gate, watching the children, helping them to play, selling and buying tickets, drinking, eating and playing.

Intrinsic: standing, waiting by the gate, watching the children, eating, chatting, selling and buying tickets, playing and running.

Group: waiting by the gate, playing, running, shouting and jumping.

Categories of activities:

Physical: participants were passively standing, sitting, waiting by the gate and watching the children, while actively they were playing, running, and jumping.

Social and related: shouting, drinking, eating, and chatting were the social related activities participated in the setting.

Setting's related: Children were playing using the setting's available tools.

Job's related: selling the tickets for the entrance were participated by members of the maintenance circuit in setting HD 7.

Date: 27/8/1993 **Time:** 5.53 p.m.

Forms of activities:

Individual: Alone, individuals were sitting, waiting by the gate, walking, running, watching the children, helping them to play, standing, playing, eating and drinking.

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[1] The individual activities in setting HD 7 are slightly intersecting with the intrinsic, e.g. parents are parts of intrinsic form of activities, but in this setting they are engaged in individual one way activities represented by watching the children.

Intrinsic: standing, shouting, waiting in the queue by the gate, walking, running, chatting, watching the children, playing and picnicking were the intrinsic participated activities.
Group: groups were booking tickets, waiting by the gate, playing, talking and picnicking.

Categories of activities:
Physical: passively particiaptns were sitting, waiting by the gate, helping and watching the children and standing. Actively participants were running, playing and walking.
Social and related: participants were socially chatting, shouting, talking and picnicking.
Setting's related: Most, if not all, children were using the available playing tools.
Job's related: members of the maintenance circuit were selling tickets for participants.

Charts (8.52), (8.53) and (8.54) illustrate the relation between the categories of participated activities in setting HD 7 in the three times of observation.

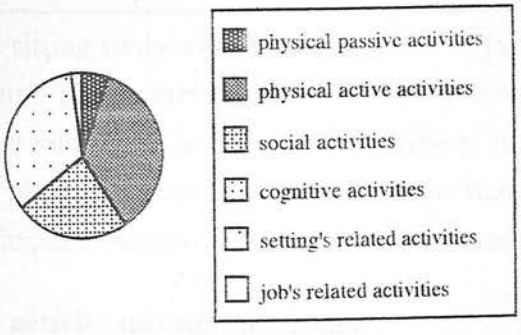


Chart (8.52), Categories of participated activities in setting HD 7 at the first time of observation

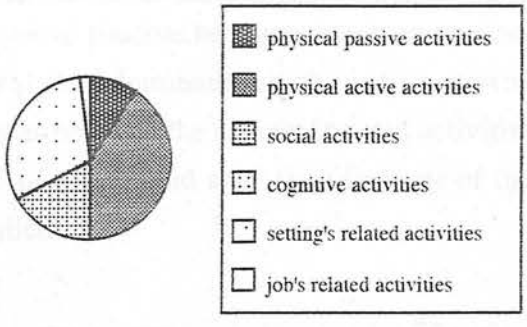


Chart (8.53) Categories of participated activities in setting HD 7 at the second time of observation.

At the three times of observation all activities were participated except the cognitive. This was very reasonable because such activities were the least to be participated by the first stage of life-cycle. In setting HD 7 the active physical activities were the most participated at the three times of observation, which is opposite to the previous setting. The physical active were followed by the setting's related activities, then the social, the physical passive and finally the job's related activities.

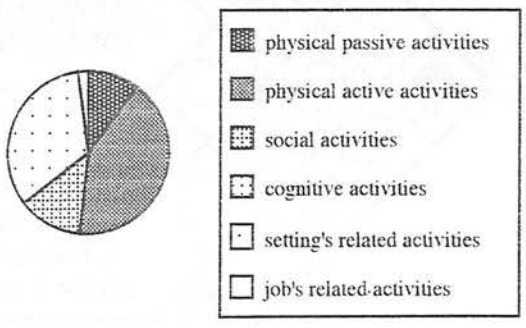


Chart (8.54), Categories of participated activities in setting HD 7 at the third time of observation.

Behaviour setting and the socio-physical aspects: the tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.19) illustrates such relation

	TOOLS			EQUIPMENT		
	sitting	learning	playing	authentic ground		functional
PHYSICAL ACTIVITIES:	●	○	○	●	●	○
SOCIAL ACTIVITIES:	●	○	○	●	○	○
COGNITIVE ACTIVITIES:	○	○	○	●	○	○
SETTING'S RELATED ACTIVITIES:	○	●	●	●	○	○
JOB'S RELATED ACTIVITIES:	○	○	○	●	○	●

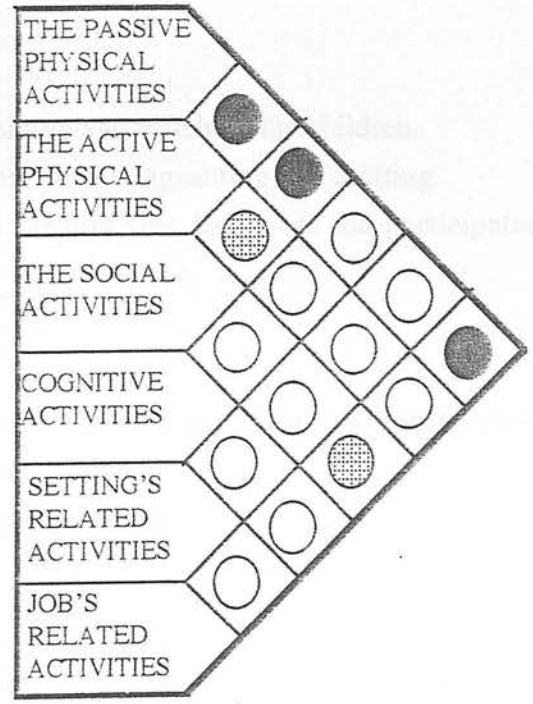
Table (8.19) Behaviour setting synomorphy, HD 7.

○ were not examined ● Weak ● Moderate ● good

The sitting tools were weak in terms of the physical passive because they were neither enough nor suitable. The "without" component was dominant which lead to a weak social relation. The only good relation of tools was between the settings' related activities and playing equipment. Although the material of the ground suits the life-stage of the participants, some safety concepts were not fulfilled.

The activity mix and package:

Mix within participated activities in setting HD 7 are illustrated in chart (8.5). Within groups the physical passive activities were strongly mixed with physical active, social and job's related activities. The active pattern in the physical activities were strongly mixed within groups with the setting's related activities but moderately with the social activities. Finally the social activities were moderately mixed with the job's related activities. The mix between activities was very strong between the active physical activities with themselves and the settings related activities. Other participated activities were moderately mixed except for the passive and social. The active physical were strongly the main activities. The rest were secondary that depend on the presence of the main.



Chart(8.55), The mix of participated activities within groups of participants, HD 7.

B-4 Setting 8 (HD 8)

Location: Morocco setting by the north side of the garden represents setting HD 8 [figure (8.28)].

Landscape elements: the ground is covered with coloured bricks of green, red and white. Other materials were used as grass, mosaic steps, mosaic non-working fountains, and concrete, [see figure (8.32)]. The tools and equipment used were in the form of some canopy trees, Moroccans style structure made of wood and mosaic and the roof is sloped green tiles, beside, benches.

Fig. (8.32), the landscape equipment in setting HD 8

Participants' socio-cultural characteristics: The setting includes all life-cycle stages. The majority were the teenagers (peer groups) followed by adults (couples and nuclear families). The old stage of life-cycle was only observed at the second time of observation. Women were more than men at the three times of observation.

Participated Activities:

Date: 22/8/1993 **Time:** 4.40 p.m.

Forms of activities:

Individual: individuals were reading, walking, sitting and watching the children.

Intrinsic: intrinsic groups were standing, walking, picnicking, sitting and chatting.

Group: sitting by the grass, fun playing and playing free ball were the participated activities by groups.

Categories of activities:

Physical: participants were standing, watching the children and sitting passively, while actively they were walking, fun playing and playing free ball.

Social and related: participants were picnicking and chatting.

Cognitive: few adults were reading.

Date: 23/8/1993 **Time:** 1.45 p.m.

Forms of activities:

Individual: some individuals were writing, reading, knitting and walking in setting HD 8.

Intrinsic: standing, sitting and chatting were the participated activities by intrinsic groups.

Group: groups were gathering, playing and chasing.

Categories of activities:

Physical: most participants were standing or sitting passively, while actively others were walking, playing and chasing one another.

Social related: participants in setting HD 8 were mainly gathered and chatting.

Cognitive: few adults were writing, reading and knitting.

Job's related: a member from the maintenance circuit was walking watching participants.

Date: 27/8/1993 **Time:** 6.10 p.m.

Forms of activities:

Individual: individuals participating were sitting, reading and watching.

Intrinsic: intrinsic groups were standing, sitting, chatting, picnicking, walking and lying.

Group: groups were fun playing, playing cassettes, sitting by the ground and chatting.

Categories of activities:

Physical: standing, sitting, watching, playing cassettes were passively participated, while actively they were walking and fun playing

Social and related: chatting and picnicking were mostly participated with other activities.

Cognitive: reading was the cognitive participated activities in setting HD 8.

Job's related: a member from the maintenance circuit was in the setting checking things.

Charts (8.56), (8.57) and (8.58) illustrate the relation between the categories of participated activities in setting HD 8 in the three times of observation.

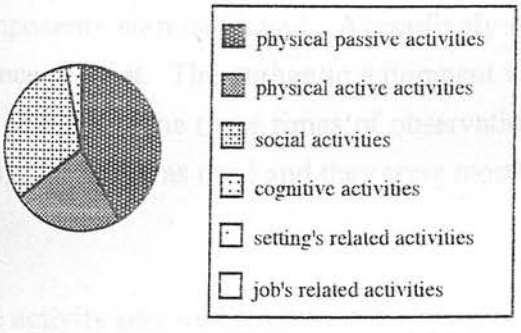


Chart (8.56), Categories of participated activities in setting HD 8 at the first time of observation

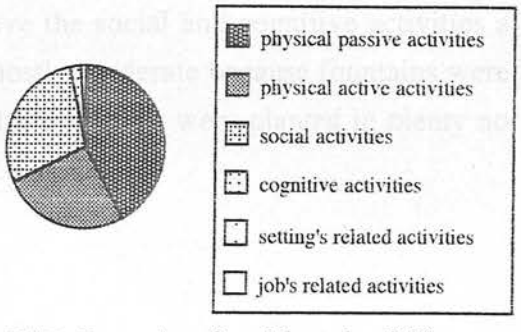


Chart (8.57), Categories of participated activities in setting HD 8 at the second time of observation.

The priority of participated activities in setting HD 8 was for the physical passive activities at the three times of observation. This was more clear at the third time of observation. The passive physical activities were followed by social and active physical activities and finally the cognitive activities. The job's related activities were only observed at the third time.

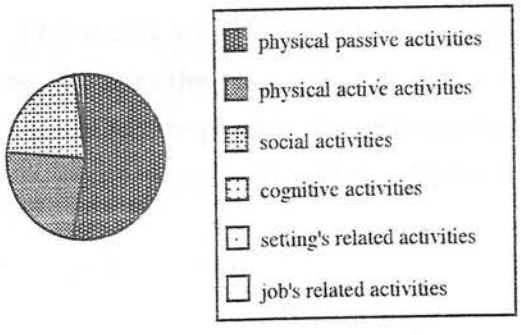


Chart (8.58), Categories of participated activities in setting HD 8 at the third time of observation.

Behaviour setting and the socio-physical aspects: the tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.20) illustrates such relation.

	TOOLS			EQUIPMENT		
	sitting	learning	playing	authentic ground		functional
PHYSICAL ACTIVITIES:	●	○	○	●	○	○
SOCIAL ACTIVITIES:	●	○	○	●	○	○
COGNITIVE ACTIVITIES:	●	○	○	●	○	○
SETTING'S RELATED ACTIVITIES:	○	○	○	○	○	○
JOB'S RELATED ACTIVITIES:	○	○	○	○	○	○

Table (8.20) Behaviour setting synomorphy, HD 8.

○ were not examined ● Weak ● Moderate ● good

A variety of sitting tools exist in the setting which afforded most categories of activities to be participated. In the arrangement of such tools both the "with" and "without" components were achieved. Accordingly this gave the social and cognitive activities a chance to exist. The authentic equipment were mostly moderate because fountains were out of order at the three times of observation. Although trees were planted in plenty no design criteria was used and they were mostly just watered.

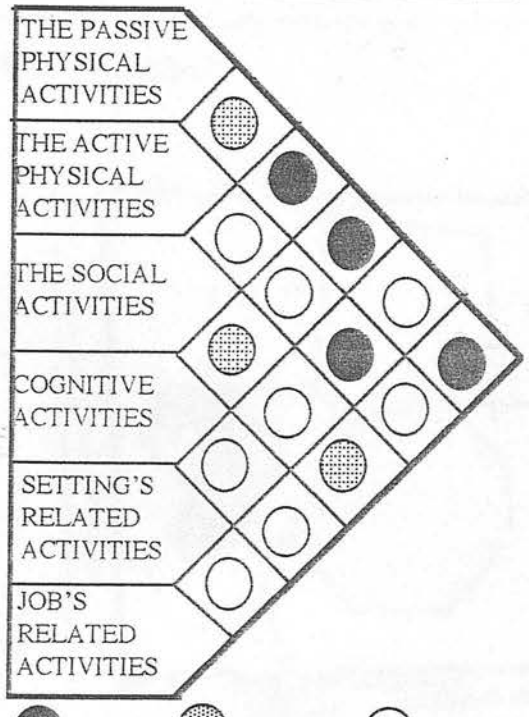
The activity mix and package:

The activity mix within groups in setting HD 8 is illustrated in chart (8.59). The passive physical activities were strongly mixed with the social, cognitive and job's related activities, but moderately with active physical activities. The active physical activities were strongly mixed with the social activities. The social activities were moderately mixed with the cognitive and job's related activities. On the other hand, the mix between activities was observed between the social and physical. The passive physical and the cognitive activities represented the main participated activities in the setting. The rest were considered secondary activities.

Notes of observation within the second area:

Environmental Aspects:

- The sitting elements within the second zone are either movable or fixed. Participants within the zone allocate the movable ones in a position which suits their use. As for the fixed, specially the large ones, they were occupied by groups and families more than couples.
- Within setting HD 7, although the setting is a children's space, safety aspects were not fulfilled. By the fence and beside the playing equipment, a large hole exists uncovered.



Chart(8.59), The mix of participated activities within groups of participants, HD 8.

Moreover, the equipment are used not only by children but also by grown ups. Definitely such way of use affects the equipment's' maintenance and life.

- The fountains within this zone were out of order in all observation times.

Participated Activities:

- In comparing the behavioural charts of the four settings in the second zone, it is noticed that setting HD 6 is the only one that includes setting's related activities. Moreover, both HD 7 and HD 5 have the highest participation and involvement in free play activities.
- The existence of the tickets kiosk by the children open space lead to the actuality of job's related activities in setting HD 7.
- In the four settings the social activities and related ones scored nearly the same.

Participants:

- Most participants were couples in the Morocco setting (HD 8), families in the Emirate setting (HD 5), groups in the Kuwait setting (HD 6) and children in the children's play area (HD 7).
- By all means, the second area is considered as one of the most favourable parts in the garden. It sure attracts all stages of life-cycle through the variety of setting and the activities such settings afford.

THE THIRD AREA: THE NORTH EAST SETTINGS:

The third area was divided into four settings according to K21 of behaviour settings' theory. Figure (8.33) illustrates the division of the four settings.

C-1 Setting 9 (HD 9)

Location: The north east corner of the garden in addition to the Japanese setting represent setting HD 9, [see figure (8.33)]

Landscape elements: grass, mud, sloped stones, a small wooden bridge and water are the landscape materials used in the setting. Tools and equipment were in the form of shrubs, canopy and palm trees, a Japanese monument and pools, see figure (8.34).

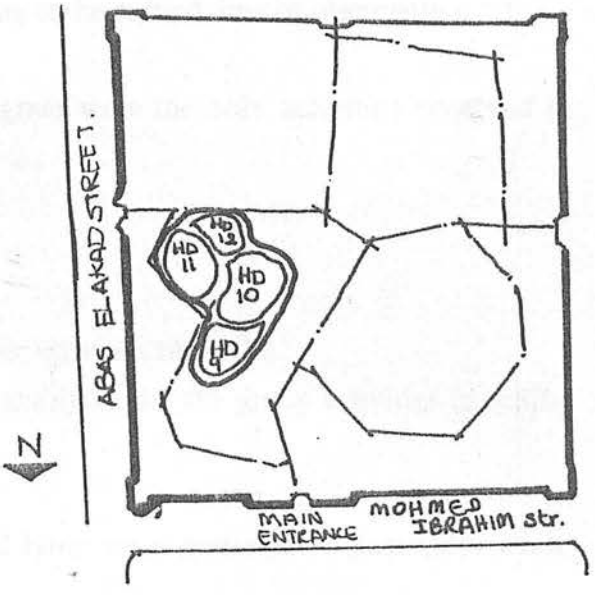


Fig. (8.33) The four settings within the third area.

Participants' socio-cultural characteristics: The setting is a very poor setting in terms of use and users. Few adults were observed at the first two time of observation. At the third time of observation, the picture was different. Children were noticed accompanied by adults. Men were more than women at the three times of observation. The intrinsic groups, specially couples, were majority in the setting.

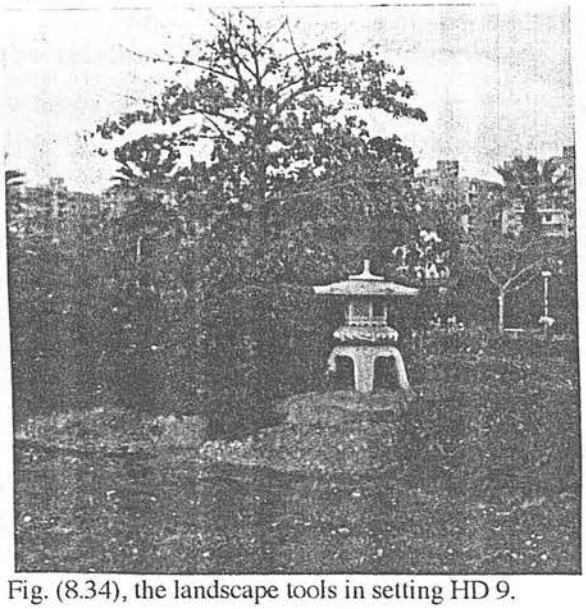


Fig. (8.34), the landscape tools in setting HD 9.

Participated Activities:

Date: 22/8/1993 **Time:** 5.00 p.m.

Forms of activities:

Individual: walking was the only activity participated, it was in the individual form. No group, intrinsic nor mass forms of activities.

Categories of activities:

Physical: walking was the only activity observed in the setting.

Date: 23/8/1993 **Time:** 1.45 p.m.

Forms of activities:

Individual: individuals were just watering the grass.

Intrinsic: staff work was observed in the setting at the second time of observation.

Categories of activities:

Job's related: staff work and watering the grass were the only activities observed in setting HD 9.

Date: 27/8/1993 **Time:** 6.10 p.m.

Forms of activities:

Intrinsic: running and playing were the intrinsic activities observed.

Group: shouting, sitting, watching, chatting and lying are the group activities in setting HD 9.

Categories of activities:

Physical: sitting, watching the children and lying were participated passively, while actively they were running and playing.

Social: shouting and chatting were the social participated activities in setting HD 9.

Charts (8.60), (8.61) and (8.62) illustrate the relation between the categories of participated activities in setting HD 9 in the three times of observation.

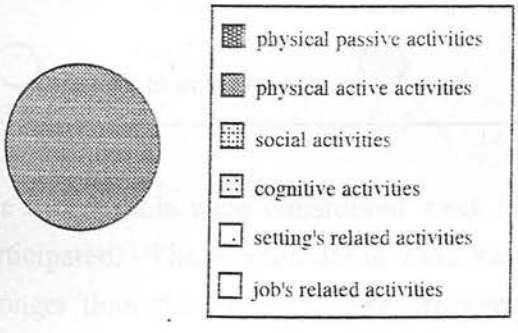


Chart (8.60), Categories of participated activities in setting HD 9 at the first time of observation

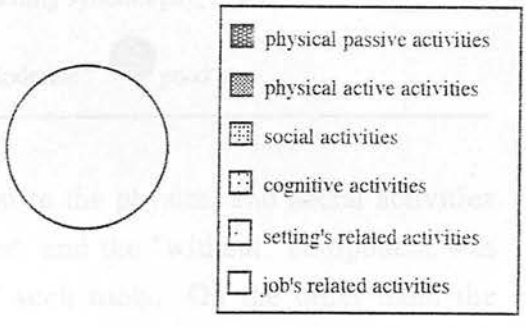


Chart (8.61) Categories of participated activities in setting HD 9 at the second time of observation.

The difference of participated activities which were observed at the three times of observation was very strong. At the first time, the activities were totally active physical, at the second time they were only job's related activities, while at the third time of observation the passive physical, active physical and social were equally participated.

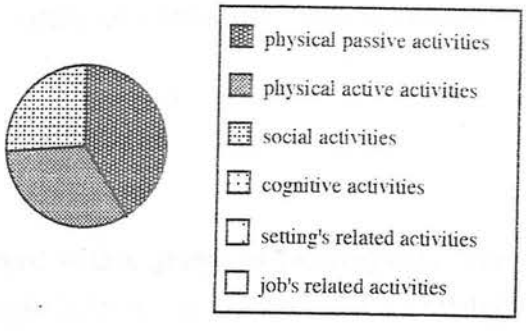


Chart (8.62), Categories of participated activities in setting HD 9 at the third time of observation.

It could be concluded that the setting is preferred by the operating circuit in the evenings than the mornings and afternoons. In general, the setting could be considered as one of the weak setting in terms of use and behaviour participated activities with relation to the other settings. It is relatively poor in the landscape elements which accordingly neither attracted participants' attention nor afforded other activities to exist.

Behaviour setting and the socio-physical aspects: the tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.21) illustrates such relation

	TOOLS			EQUIPMENT		
	sitting	learning	playing	authentic	ground	functional
PHYSICAL ACTIVITIES:	◐	○	○	●	○	○
SOCIAL ACTIVITIES:	◐	○	○	○	○	○
COGNITIVE ACTIVITIES:	●	○	○	●	○	○
SETTING'S RELATED ACTIVITIES:	○	○	○	○	○	○
JOB'S RELATED ACTIVITIES:	○	○	○	○	○	○

Table (8.21) Behaviour setting synomorphy, HD 9.

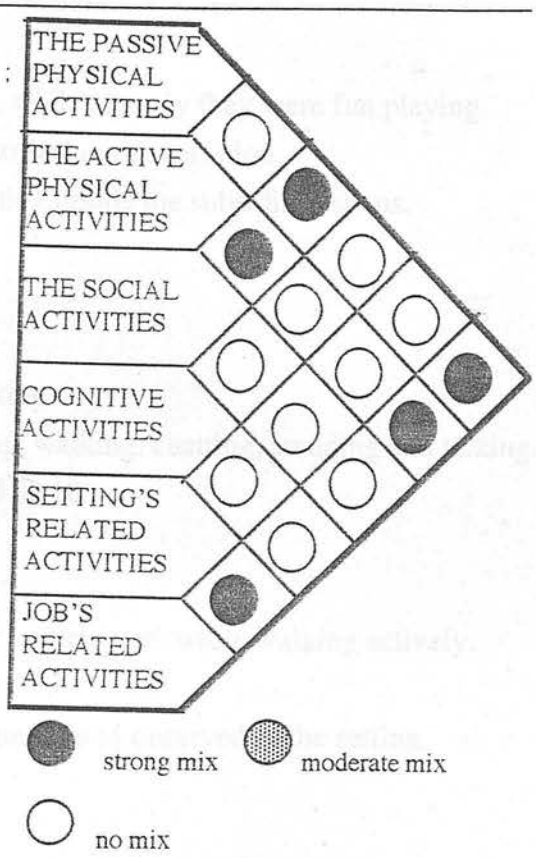
○ were not examined ◐ Weak ◑ Moderate ● good

The sitting tools were considered weak in relation to the physical and social activities participated. The shaded areas were very limited, and the "without" component was stronger than the "with" in the arrangement of such tools. On the other hand the "without" component in addition to the authentic equipment could afford the participation of cognitive activities. The authentic equipment were taken care of except for the indistinguishable selection of the visual aspects of the sitting tools. Functionally the activities which should exist did not at the three times of observation which made the setting under question.

The activity mix and package:

The participated activities in the setting were mixed within groups of participants. The physical activities in both forms were mixed strongly with the social and the job's related activities.

Also the job's related activities were strongly mixed with the setting's related activities, e.g. the maintenance circuit were gardening in specific settings, accordingly their job depends on the setting also. In terms of the participated activities this setting is very poor. The main activities were the job's related ones, [see chart (8.63)]



Chart(8.63), The mix of participated activities within groups of participants, HD 9.

C-2 setting 10 (HD 10)

Location: Romania, Argentinean, Holland and cafeteria part by the north east side of the garden, [figure (8.33)].

Landscape elements: The materials used are light blue and red brick concrete, and grass ground. Tools and equipment are scattered in the setting benches, canopy trees, subsidiary shops, cafeteria, round marble and stone structure, a fountain out of order with light blue tiles and a wooden wind mill used by the subsidiary shops as storage for soft drink boxes, [figure (8.35)].

Participants' socio-cultural characteristics: Teenagers were the main participants in the setting. Couples were more observed at this setting, a concept which is very common in the third area. Children and old age were nearly nil. Although couples were the dominant type of groups, males were more than females in the setting.

Fig. (8.35), the landscape tools used in setting HD 10.

Participated Activities:

Date: 22/8/1993 **Time: 5.10**

Forms of activities:

Individual: participants who were alone were either sitting or eating.

Intrinsic: sitting, eating and chatting were participated activities in the intrinsic form.

Group: groups were mostly fun playing.

Categories of activities:

Physical: participants were passively sitting, while actively they were fun playing.

Social relatted: participants were moslty absorbed in conversstion.

Setting's related: a few participants were eating beside the subsidiary shops.

Date: 23/8/1993 **Time: 2.15** p.m.

Forms of activities:

Individual: individuals were sitting and walking.

Intrinsic: intrinsic groups were buying, sitting, walking, chatting, standing and talking.

Group: groups were only walking in setting HD 10.

Categories of activities:

Physical: sitting and standing were passively participated, while walking actively.

Social: groups were talking in the setting.

Setting's related: buying fast food and other needs was observed in the setting.

Date: 27/8/1993 **Time:** 6.45 p.m.

Forms of activities:

Individual: individuals were standing, lying, sitting, reading, walking and watching others.

Intrinsic: sitting, talking, walking, playing and eating were observed by intrinsic groups.

Group: walking, singing, fun playing, talking and picnicking were participated.

Categories of activities:

Physical: standing, lying, singing, sitting, picnicking and watching others were passively participated, while actively participants were mainly walking and fun playing.

Social and related: participants were talking in sub groups.

Cognitive: an individual was observed reading.

Setting's related: eating in setting HD 10 was observed especially by intrinsic participants.

Charts (8.64), (8.65) and (8.66) illustrate the relation between the categories of participated activities in setting HD 10 in the three times of observation.

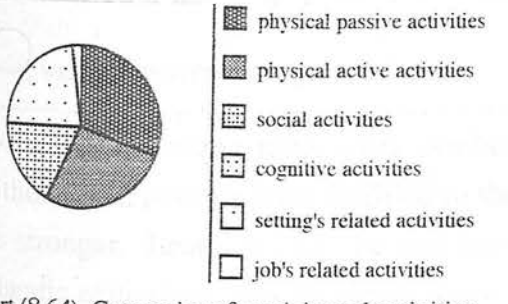


Chart (8.64), Categories of participated activities in setting HD 10 at the first time of observation

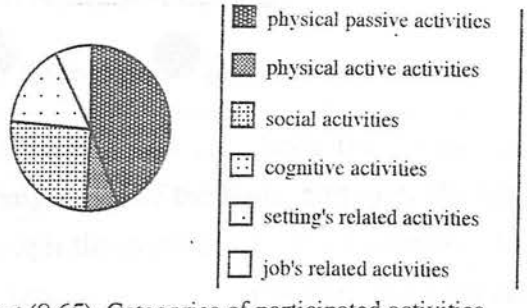


Chart (8.65), Categories of participated activities in setting HD 10 at the second time of observation.

At the first time of observation the physical passive activities were the highest activities participated, followed by the active physical, setting's related activities then social and finally the job's related activities. At both the second and third time of observation, although the priority was still for the passive physical activities, they were followed by the social, then setting's related, active physical and finally the job's related activities.

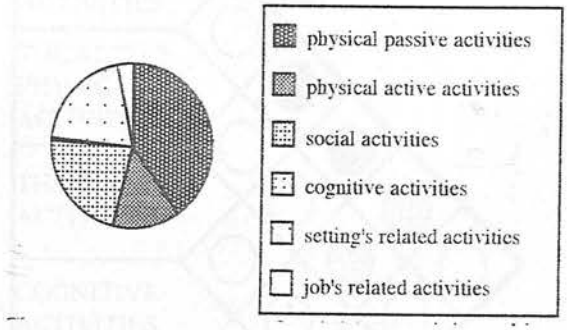


Chart (8.66), Categories of participated activities in setting HD 10 at the third time of observation.

In general setting HD 10 was more directed to both the passive physical and social activities while the least participated activities by the operating circuit was the active physical activities.

Behaviour setting and the socio-physical aspects: the tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.22) illustrates such relation

	TOOLS			EQUIPMENT		
	sitting	learning	playing	authentic	ground	functional
PHYSICAL ACTIVITIES:	●	●	○	●	○	○
SOCIAL ACTIVITIES:	◉	○	○	○	○	○
COGNITIVE ACTIVITIES:	●	●	○	●	○	○
SETTING'S RELATED ACTIVITIES:	○	◉	○	○	○	○
JOB'S RELATED ACTIVITIES:	○	○	○	○	○	○

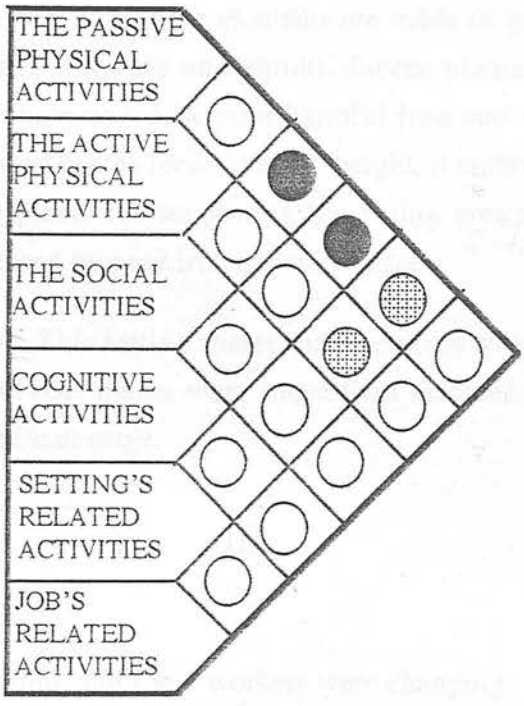
Table (8.22) Behaviour setting synomorphy, HD 10.

○ were not examined ◉ Weak ◉ Moderate ● good

Most types of sitting tools were available in setting HD 10. Both the "with" and "without" components were fulfilled in the arrangement of the tools, although the latter was stronger. Learning bout the countries through the setting was also available. The authentic equipment were moderate due to the haphazard selection of both the tools and equipment. functionally the setting should have afforded more activities specially in the cognitive category.

The activity mix and package:

The activity mix within groups in setting HD 10 is illustrated in chart (8.67). Only the physical activities were mixed in the passive pattern with other activities. They were mixed strongly with both the social and cognitive, while moderately with the setting's related activities. For example most participants who were talking and reading were sitting or standing, when they were eating they were sometimes walking or sitting. The passive physical and cognitive activities were considered main. The rest could be considered secondary.



Chart(8.67), The mix of participated activities within groups of participants, HD10.

C-3 Setting 11 (HD 11)

Location: France and Frankfort settings by the east side of the garden, represent setting HD 11 [figure (8.33)].

Landscape elements: The whole site is higher than the main route. It is connected to it by red brick steps and sloped grass, figure (8.36). The ground of the French part is made of rectangular tiles type for pedestrian while the rest is mud, where trees and shrubs are planted. On the other side the Frankfort part is grounded by large rectangle tiles for pedestrian and mud for plants. The tools and equipment in the setting were represented by some movable benches, which are distributed under the wooden louvers for shade.

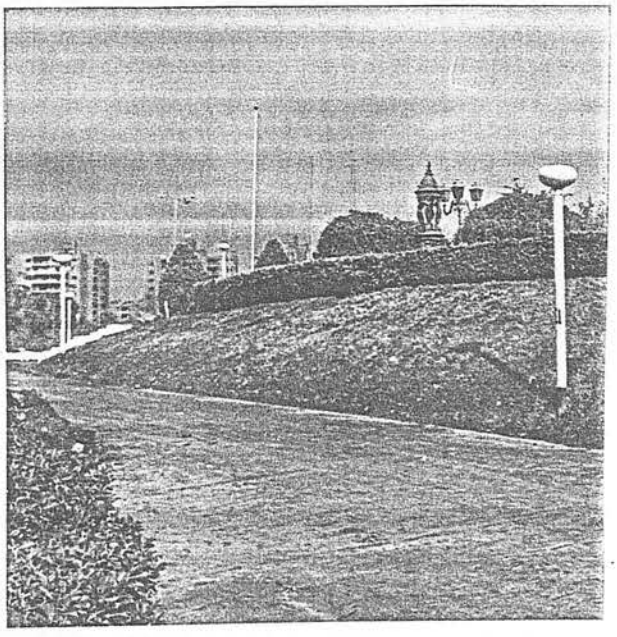


Fig. (8.36) The difference in levels between setting HD 11 and the other settings.

The French part includes a notice board by its entrance, a renaissance type fountain in a shape of statue, beside lighting objects. All such landscape elements are made of green iron which gives special style to the setting. Flowers and shrubs, faeces plants are supported by wooden boxes while most are surrounded by poor harmful iron and wire fences. The Frankfort part is fenced by a calmed faeces fence at a low height, it embodies a sculpture, wooden louvers with climbing plants for supporting the sitting area with shades, middle sized trees and flower beds fenced by poor iron and wire fences.

Participants' socio-cultural characteristics: This setting shares many aspects with the pervious setting. Couples were more observed, males were more than females and second stage in life-cycle represented the dominant stage.

Participated Activities:

Date: 22/8/1993 **Time:** 5.30 p.m.

Forms of activities:

Individual: alone very few individuals were sitting and some workers were changing.

Intrinsic: intrinsic groups were sitting, walking and talking.

Categories of activities:

Physical: passively participants were sitting, while actively others were walking.

Social: most participants were engaged in the conversation.

Job's related activities: workers were changing in setting HD 11.

Date: 23/8/1993 **Time:** 2.30 p.m.

Forms of activities:

Individual: individuals were either watching others or sitting.

Intrinsic: Intrinsic activities were walking, sitting, talking, standing, playing and eating.

Categories of activities:

Physical: watching others, sitting, picnicking and standing were passively participated, while actively participants were walking in the setting.

Social: while engaged in the physical activities, participants were talking.

Date: 27/8/1993 **Time:** 7.00 p.m.

Forms of activities:

Individual: individuals were sitting and watching others.

Intrinsic: sitting, walking and talking were participated by intrinsic groups.

Group: groups were standing, singing and fun playing.

Categories of activities:

Physical: sitting, standing, singing and watching others were passively participated, while other participants were fun playing actively.

Social: While engaged in the passive physical activities, participants were talking.

Charts (8.68), (8.69) and (8.70) illustrate the relation between the categories of participated activities in setting HD 11 in the three times of observation. The social and active physical activities were nearly the same at the first two times of observation but the social were more participated at the third time of observation.

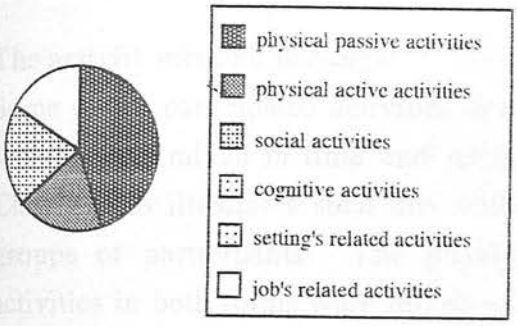


Chart (8.68), Categories of participated activities in setting HD 11 at the first time of observation

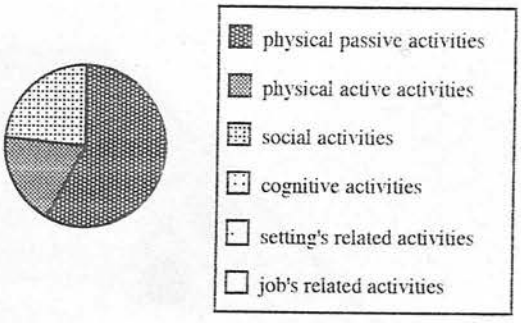


Chart (8.69), Categories of participated activities in setting HD 11 at the second time of observation.

Comparison between the three times of observations, notified similarities between the second and third time. The first time of observation included job's related activities which did not exist at the other two observation times. The priority of the passive physical activities was dominant at the three times of observation, (more than 50%).

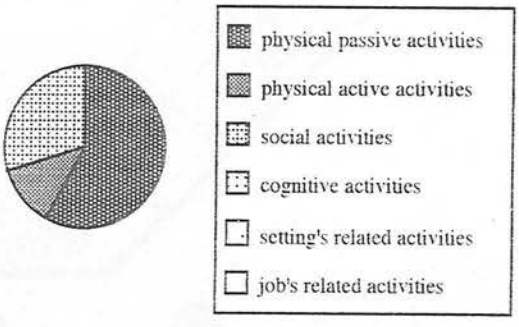


Chart (8.70), Categories of participated activities in setting HD 11 at the third time of observation.

Behaviour setting and the socio-physical aspects: the tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.23) illustrates such relation

	TOOLS			EQUIPMENT		
	sitting	learning	playing	authentic	ground	functional
PHYSICAL ACTIVITIES:	●	○	◍	●	○	○
SOCIAL ACTIVITIES:	●	○	○	●	○	○
COGNITIVE ACTIVITIES:	●	○	○	●	○	○
SETTING'S RELATED ACTIVITIES:	●	●	○	●	○	○
JOB'S RELATED ACTIVITIES:	○	○	○	○	○	○

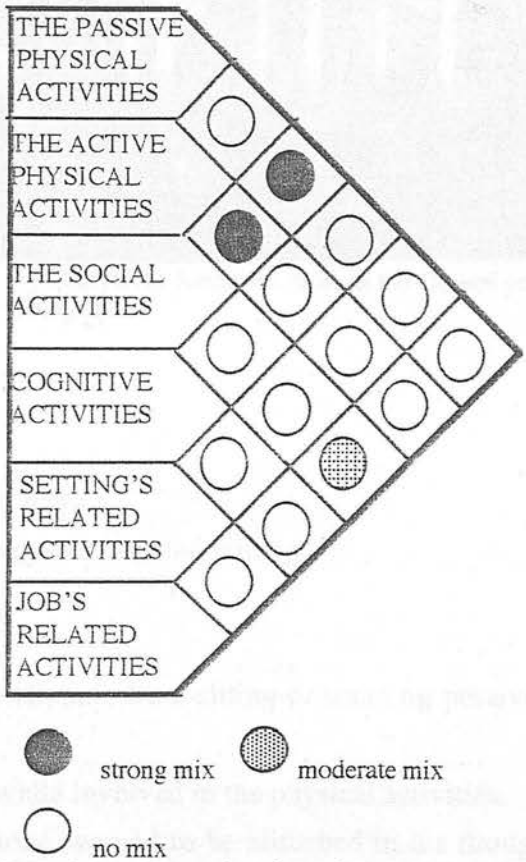
Table (8.23) Behaviour setting synomorphy, HD 11.

○ were not examined ◍ Weak ● Moderate ● good

A variety of sitting tools in types and arrangement exist in setting HD 11, which gave good relation with most categories of activities. The authentic equipment symbolises the style of countries and enhanced most activities to exist. The setting in general did not afford the active physical activities to be strongly participated.

The activity mix and package:

Some of the participated activities in the setting were mixed in time and setting. Chart (8.71) illustrates such mix within groups of participants. The physical activities in both forms were mixed with social ones. For example while participants were sitting or walking they were engaged in conversation. The job's related activities were moderately mixed with the social, e.g. the worker were some times talking while changing. As the previous setting, the passive physical represent the main ones, while the rest were the secondary.



Chart(8.71), The mix of participated activities within groups of participants, HD 11.

C-4 setting 12 (HD 12)

Location: Setting HD 12 is represented by Stuttgart and Greece setting in the middle of the garden, [figure (8.33]

Landscape elements: The ground of the Stuttgart part is covered with stones, and wood beside mud for planting. Some built in red brick benches are fixed. On the other hand the Greece area is mostly mud except of intersecting paths allocated through the grass and the tiled part under the Greece columns. The tools and equipment used in the settings are as follows:

The Stuttgart part includes some wooden louvers covering the sitting area beside another circular wooden louver supported on wooden columns by the south entrance of the area. Calmed shrubs, canopy trees and grass are planted within this area. The Greece area embodies a shaded spot of white wooden louvers supported by ten Greece columns in two rows. This part of the setting is relatively neglected in terms of plants as they are not calmed and the grass is totally mangled, while the flower beds are fenced with harmful ugly iron bars with wire fence, [see figure (8.37)].

Participants' socio-cultural characteristics: As the previous setting, teenagers represent the major stage of life-cycle at the three times of observation.There was a balance in the differences of sex. In general the setting was not considered used. Parts of it were used for transition from a setting to the other. The third time of observation was the most relatively used.

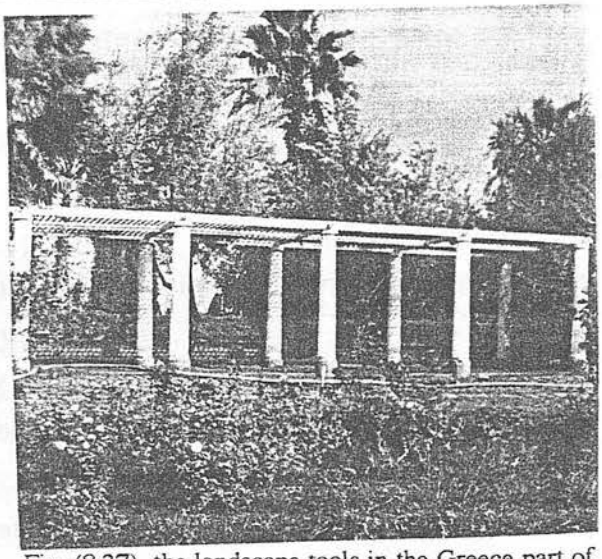


Fig. (8.37), the landscape tools in the Greece part of setting HD 12

Participated Activities:

Date: 22/8/1993 **Time:** 5.40 p.m.

Forms of activities:

Individual: individuals were just watching the scene.

Intrinsic: intrinsic groups were walking, sitting, standing and talking.

Categories of activities:

Physical: in terms of physical activities, participants were sitting or standing passively, while actively they were walking.

Social and related: participants were talking while involved in the physical activities.

Cognitive: a participants who was sitting alone seemed to be absorbed in his thoughts while watching the scene.

Date: 23/8/1993 **Time:** 2.50 p.m.

Forms of activities:

Intrinsic: only the intrinsic activities were observed at the second time of observation. Participants were walking, sitting and talking.

Categories of activities:

Physical: physically, participants were either sitting passively or walking actively.

Social and related: talking while engaged in the other activities was observed.

Date: 27/8/1993 **Time:** 7.20 p.m.

Forms of activities:

Individual: at the third time of observation, participants were sitting, watching and walking alone.

Intrinsic: the intrinsic groups were mainly walking, sitting, talking, photographing, standing and watching.
Group: groups were singing, fun playing and walking.

Categories of activities:
Physical: sitting, watching others and singing were passively participated. On the other hand, walking and fun playing were actively participated.
Social and related: participants were talking in the setting.
Setting's related: taking photographs was observed at the third time.

Charts (8.72), (8.73) and (8.74) illustrate the relation between the categories of participated activities in setting HD 12 in the three times of observation.

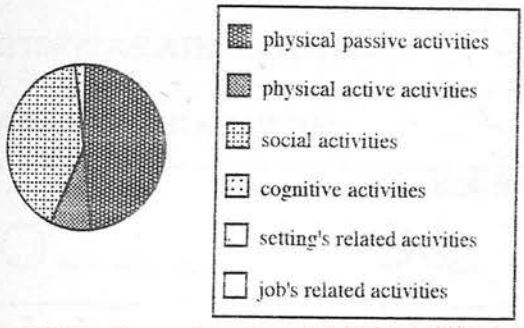


Chart (8.72), Categories of participated activities in setting HD 12 at the first time of observation

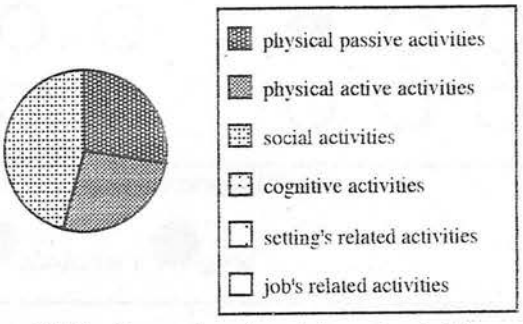


Chart (8.73), Categories of participated activities in setting HD 12 at the second time of observation.

Significant differences are noticed between the three above charts. At the first time, half the participated activities were passive physical activities followed by social then active and finally cognitive. At the second time of observation, nearly half the participated activities were social, while the physical passive and active were nearly the same. Finally at the third time of observation, more than half the activities were physical active followed by social then passive physical and finally setting's related activities.

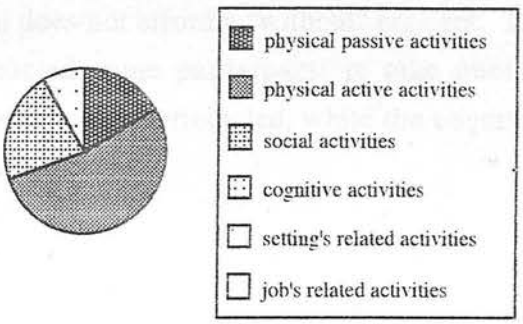


Chart (8.74), Categories of participated activities in setting HD 12 at the third time of observation.

Part of the differences between the three times of observation lies in the environmental dimension. The observation took place in summer, so the passive activities were more participated at the early times of the day. On the other hand, the active physical activities were participated more at the evenings when the weather is cooler. The social activities has no relation to the weather but top the type of activities included in the package.

Behaviour setting and the socio-physical aspects: the tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.24) illustrates such relation.

	TOOLS			EQUIPMENT		
	sitting	learning	playing	authentic	ground	functional
PHYSICAL ACTIVITIES:	◐	○	○	●	●	○
SOCIAL ACTIVITIES:	◐	○	○	○	○	○
COGNITIVE ACTIVITIES:	●	○	○	○	○	○
SETTING'S RELATED ACTIVITIES:	○	○	○	●	○	○
JOB'S RELATED ACTIVITIES:	○	○	○	○	○	○

Table (8.24) Behaviour setting synomorphy, HD 12.

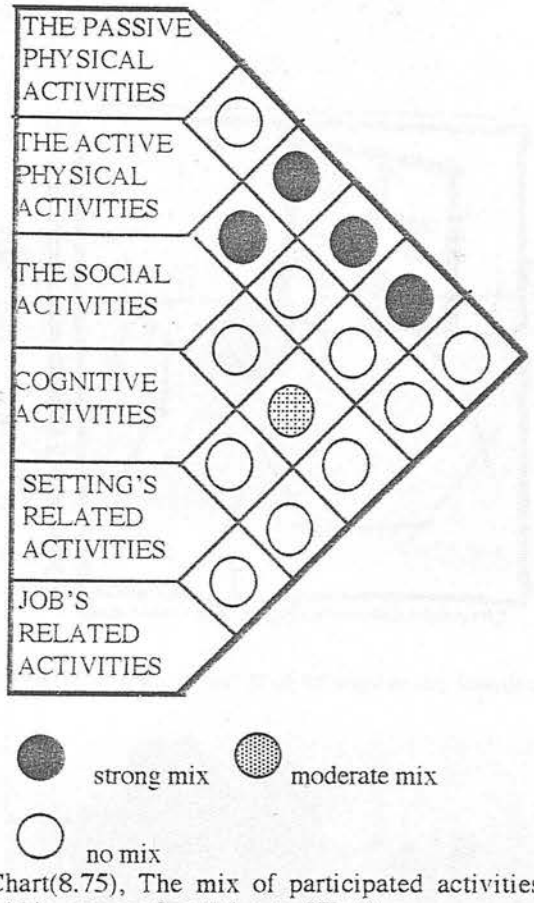
○ were not examined ◐ Weak ● Moderate ● good

The sitting tools were not distributed in all the setting. For example, The Greece part does not include any. Where excited, the sitting tools were not in a good shape to use. The "with" component is moderated but because of the isolation sense of the setting the social activities were not strong. The cognitive activities should have existed more for such isolation, but the sitting tools arrangement does not afford a "without" concept. The authentic equipment of the Greece part attracted some participants to take photos. functionally, the physical and the social were strongly participated, while the cognitive and setting's related were moderately participated.

The activity mix and package:

The mix within groups was strongly noticed between the physical activities in the passive pattern and the social, cognitive and setting's related activities. The physical in the active from was mixed strongly just with the social. On the other hand, the cognitive was moderately mixed with the setting's related activities because while taking photographs some were talking while other were not. The passive physical activities were the main except at the third time.

The active physical were considered the main activities. Other participated activities in the setting were secondary. The activity mix in setting HD 12 is illustrated in chart (8.75).



Chart(8.75), The mix of participated activities within groups of participants, HD 12.

Notes of observation within the third zone:

Environmental Aspects:

- The landscape elements within the third zone reflects the culture of each setting. The most two remarkable furnished settings are the French and the Frankfort setting (HD 11).
- Between the settings some sitting elements are distributed for participants to use for picnicking and socialising. These settings are used mainly for eating and drinking.
- Fountains within the third zone were out of order.

Participated Activities:

- In comparing the participated activities within the four settings of the third zone, it could be concluded that;

1- Setting 10 is the only one that includes job's related activities and setting's related activities.

2- The social and related activities is minimally participated in setting 9.

Participants:

- The couples who stem from the intrinsic group were the main participants of the third zone. They were followed by groups who were subdivided into subgroups.

THE FOURTH AREA: THE SOUTH WEST SETTINGS:

The fourth area in the garden was also divided to K21 of behaviour setting's theory. The division lead to five settings illustrated in figure (8.38)

D-1 setting 13 (HD 13)

Location: The mini zoo in the middle of the garden represents setting HD 3, [see figure (8.39)]

Landscape elements: rectangular blue and pink tiles, mud and grass are the materials used in the setting. In terms of the tools and equipment used, the whole area is fenced by metallic fences.

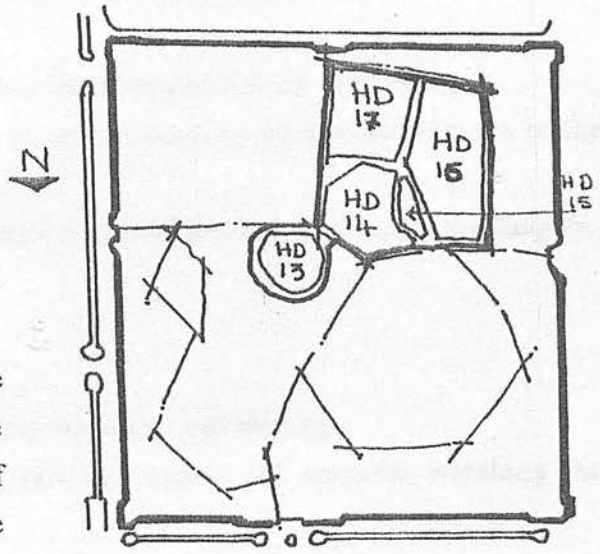


Fig. (8.38), the division of settings in the fourth area.

Within the mini zoo, animals are in metal cages, lighting elements are white metal with single bulb and the trees are mostly canopy with some shrubs and small palm trees. The mini zoo is relatively poor, no maintenance or cleaness noticed in the setting. Signs hanged on the cages have no relation to the animals inside, e.g. the notice sign of the peafowl is hanged for the hill goats. In general most cages have no sign boards. The animals within the setting were no more than monkeys, a camel, two hill goats, and some birds as ducks, parrots, and peafowl.

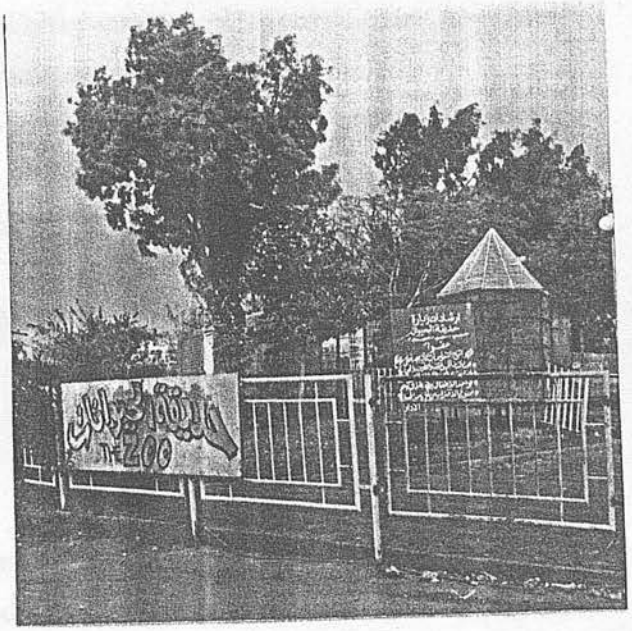


Fig. (8.39), the landscape tools in setting HD 13.

Participants' socio-cultural characteristics: adults and children were more observed in setting HD 13. The nuclear family represent the major group of participants. It could be mentioned that because of the poor elements and neglected animals such setting does not have the attraction and activities it was supposed to have. A balance of sex was observed.

Participated Activities:

Date: 22/8/1993 **Time:** 6.00 p.m.

Forms of activities:

Individual: individuals were selling tickets, watching the animals and standing.

Intrinsic: intrinsic groups were standing, walking, talking and watching the animals.

Categories of activities:

Physical: passively, participants were sitting, standing and watching the animals and actively they were walking.

Social: talking was the activity participated in the setting beside the previous.

Setting's related: watching the animals was participated by all the participants in the setting.

Job's related: two members of the maintenance circuit were selling the tickets by the gate.

Date: 23/8/1993 **Time:** 3.05 p.m.

Forms of activities:

Individual: individuals were sitting for selling the tickets and buying.

Intrinsic: intrinsic groups were walking, talking, feeding the animals, watching the animals and standing.

Categories of activities:

Physical: sitting, standing and watching the animals were the main participated activities passively in the setting, while actively, participants were just walking.

Social and related: talking as a secondary activity was participated between intrinsic groups.

Setting's related: participants were watching, feeding the animals or buying tickets to enter the setting.

Job's related: selling the tickets by the gate of the setting was done by part of the maintenance circuit.

Date: 27/8/1993 **Time:** 7.45 p.m.

Forms of activities:

Individual: sitting for selling the tickets, buying tickets, walking, feeding the animals and watching them were the individual participated activities at the third time of observation.

Intrinsic: watching the animals, talking, standing and walking were the intrinsic form of activities participated.

Group: group activities were in the form of watching the animals, talking, standing and walking.

Categories of activities:

Physical: passively participants were sitting (just the maintenance circuit), watching animals or standing, while passively, they were walking.

Social: as the previous time of observation, participants were talking.

Setting's related: participants were either buying their tickets to enter the setting or watching the animals.

Job's related: two members of the maintenance circuit were selling tickets.

Charts (8.76), (8.77) and (8.78) illustrate the relation between the categories of participated activities in setting HD 13 in the three times of observation.

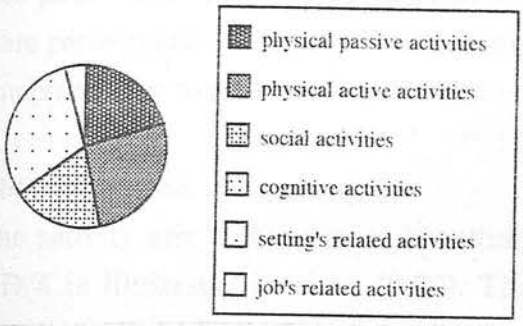


Chart (8.76), Categories of participated activities in setting HD 13 at the first time of observation

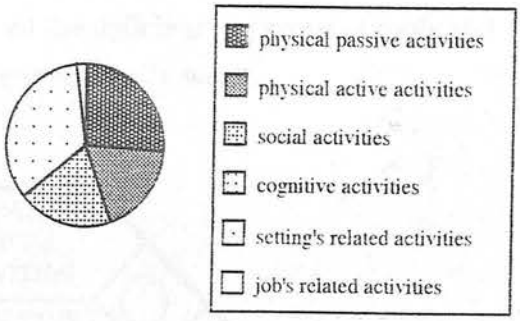


Chart (8.77) Categories of participated activities in setting HD 13 at the second time of observation.

The priority at the three times of observation was for the setting's related activities followed by both the physical and social activities. The job's related activities were the minority at the three times of observation as they were represented by maximum two persons. No noticed differences were concluded from the above charts.

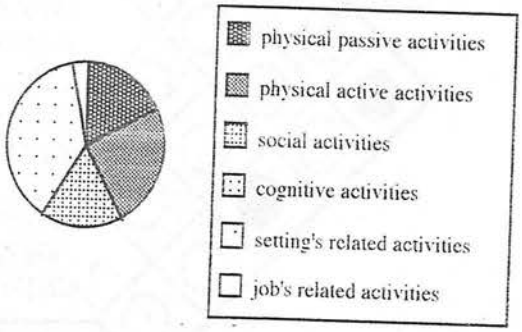


Chart (8.78), Categories of participated activities in setting HD 13 at the third time of observation.

Behaviour setting and the socio-physical aspects: the tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.25) illustrates such relation

	TOOLS			EQUIPMENT		
	sitting	learning	playing	authentic	ground	functional
PHYSICAL ACTIVITIES:	◕	○	○	◕	○	◕
SOCIAL ACTIVITIES:	◕	○	○	○	○	◕
COGNITIVE ACTIVITIES:	○	○	○	○	○	○
SETTING'S RELATED ACTIVITIES:	◕	◕	○	○	○	◕
JOB'S RELATED ACTIVITIES:	●	○	○	○	○	◕

Table (8.25) Behaviour setting synomorphy, HD 13.

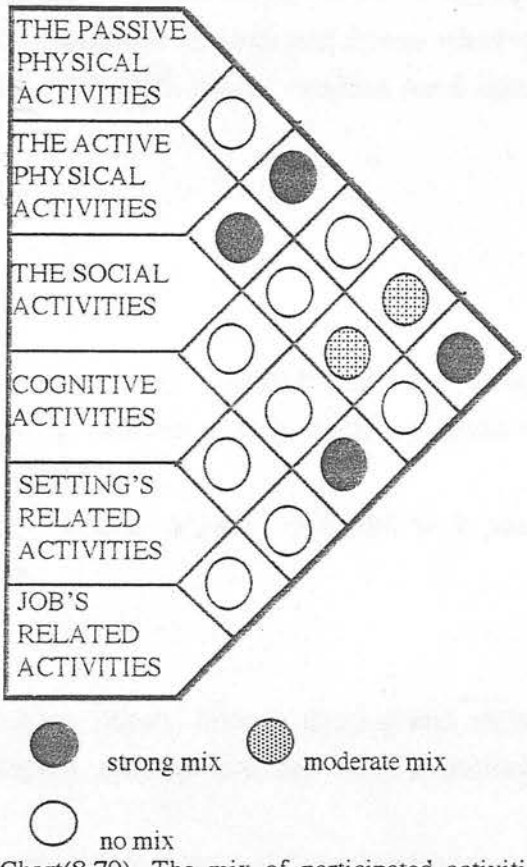
○ were not examined ◔ Weak ◕ Moderate ● good

The tools and equipment in general are considered weak. No siting tools existed in the setting so the passive physical activities and the social were weak. Due to the miss-

distribution of signs with relation to the kind of animals, the cognitive activities were negative, although the setting should fulfil such activities. The authentic equipment were also poor which resulted weak relation with most activities. Functionally most activities were participated moderately in the setting, despite all the deficiency in terms of tools and equipment. In contrast, the cognitive activities were functionally weak.

The activity mix and package:

The activity mix within groups in setting HD 4 is illustrated in chart (8.79). The physical activities in the passive pattern was strongly mixed with the social and job's related activities. They were moderately mixed with the cognitive. The active pattern of the physical activities was mixed strongly with the social, while moderately with the setting's related activities. On the other hand the job's related activities were strongly mixed with the social. The setting is totally devoted to setting's related activities and so are considered main.



Chart(8.79), The mix of participated activities within groups of participants, HD 13.

D-2 Settings 14 (HD 14)

Location: The Egyptian setting, nearly by the middle of the garden represents setting HD 13, [figure (8.42)]

Landscape elements: materials used insetting HD 14 were sand, grass, water and rocks. The tools and equipment are in the shape of shaded structures made of palm trees leaves, and a metallic bar, a variety of trees, canopy, shrubs and flowers, [see figure (8.40)]. A model of Egypt represented by the main cities by the Nile, starting from Alexandria by the north to upper Egypt by the south where a model of the great damp exists.

Fig. (8.40), the landscape tools and equipment in setting HD 14.

By the west side of the setting, an obelisk is fixed by which some benches are set apart. Movable wooden benches are spread in the area. Metallic supports for trees, lighting elements and wooden kiosks.[1]

Participants' socio-cultural characteristics: setting HD 14 is one of the mostly used settings with relation to the other settings. It includes all stages of life-cycle. The first three stages represent a majority. participants were socially gathered in the form of couples. It has been noticed that females are gathered in twos and threes while males were in more than fours in the second stage of the life-cycle. couples were mixed of males and females in a balanced ratio.

Participated Activities:

Date: 22/8/1993 **Time:** 6.20 p.m.

Forms of activities:

Individual: individual activities were participated as lying, watching others and sitting.

Intrinsic: intrinsic form of activities as sitting, talking, eating, standing, picnicking, pedalling and playing were participated at the first time.

Group: sitting, singing, shouting, chatting, walking, playing hide and seek and fun playing were the group activities in the setting.

Categories of activities:

Physical: passively, participants were watching others, sitting, singing and standing, picnicking while actively they were fun playing, playing hide and seek, pedalling and walking.

Social and related: chatting and shouting shouting where the social participated activities in the setting.

Setting's related: watching and playing in the model was participated specially by children.

Job's related: some of the maintenance circuit were walking by the setting.

Date: 23/8/1993 **Time: 3.25** p.m.

Forms of activities:

Individual: individual activities were participated as sitting and reading.

Intrinsic: pedalling, talking, walking, picnicking, standing and playing hide and seek were the intrinsic activities in setting HD 14.

Group: sitting, talking, walking and standing were the group participated activities in the setting.

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[1] by the south side of the setting a blackboard was allocated where an educational project takes place for teaching the member of the maintenance circuit (gardeners). The idea is very thoughtful although it was not observed at any of the three times of observation.

Categories of activities:

Physical: passively participants were sitting, standing or picnicking, while actively they were walking, pedalling and playing hide and seek.

Social and related: talking and picnicking were participated in the setting.

Cognitive: reading was observed as a cognitive activity in setting HD 14.

Setting's related: watching and playing in the model was participated specially by children was observed at the second time of observation.

Job's related: some of the maintenance circuit were standing.

Date: 27/8/1993 **Time:** 8.10 p.m.

Forms of activities:

Individual: walking, sitting and watching were the form of individual activities.

Intrinsic: intrinsic activities were observed in the setting as sitting, talking, pedalling, watching others, picnicking, running and walking.

Group: sitting, singing, fun playing, walking, talking, gathering, picnicking and standing were the group activities participated.

Categories of activities:

Physical: sitting, standing, singing and watching others were observed as physical activities in the passive pattern. Actively, participants were walking, pedalling, running and fun playing.

Social and related: participants were talking, gathering and picnicking.

Setting's related: some children were playing by the model.

Charts (8.80), (8.81) and (8.82) illustrate the relation between the categories of participated activities in setting HD 14 in the three times of observation.

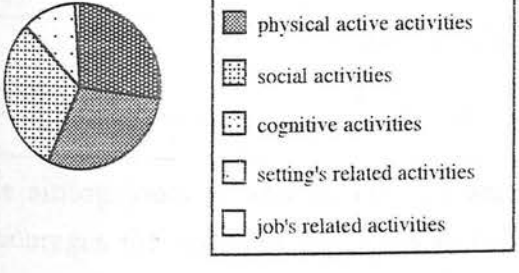


Chart (8.80), Categories of participated activities in setting HD 14 at the first time of observation

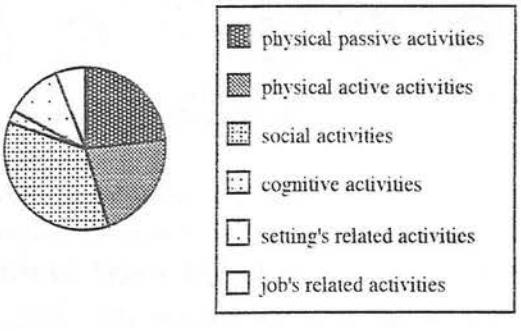


Chart (8.81), Categories of participated activities in setting HD 14 at the second time of observation.

The first three categories of participated activities at the three times of observation in setting HD 14 are similar. The top high were the social, then the active physical and finally the passive physical activities. Following these three categories and at the first time of observation, were the setting's related, then the job's related activities.

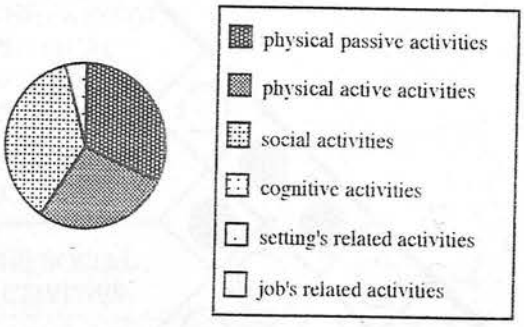


Chart (8.82), Categories of participated activities in setting HD 14 at the third time of observation.

At the second time of observation the setting's related followed the first three categories then the job's related and finally the cognitive activities. At the third time of observation, the first three categories were followed by setting's related activities. Accordingly setting HD 14 is considered a socio-physical setting and part of these activities were directed towards the setting's related activities.

Behaviour setting and the socio-physical aspects: the tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.26) illustrates such relation

	TOOLS			EQUIPMENT		
	sitting	learning	playing	authentic	ground	functional
PHYSICAL ACTIVITIES:	●	●	○	●	○	●
SOCIAL ACTIVITIES:	●	●	○	○	○	●
COGNITIVE ACTIVITIES:	●	●	○	○	○	●
SETTING'S RELATED ACTIVITIES:	●	○	●	○	○	○
JOB'S RELATED ACTIVITIES:	○	○	○	○	○	○

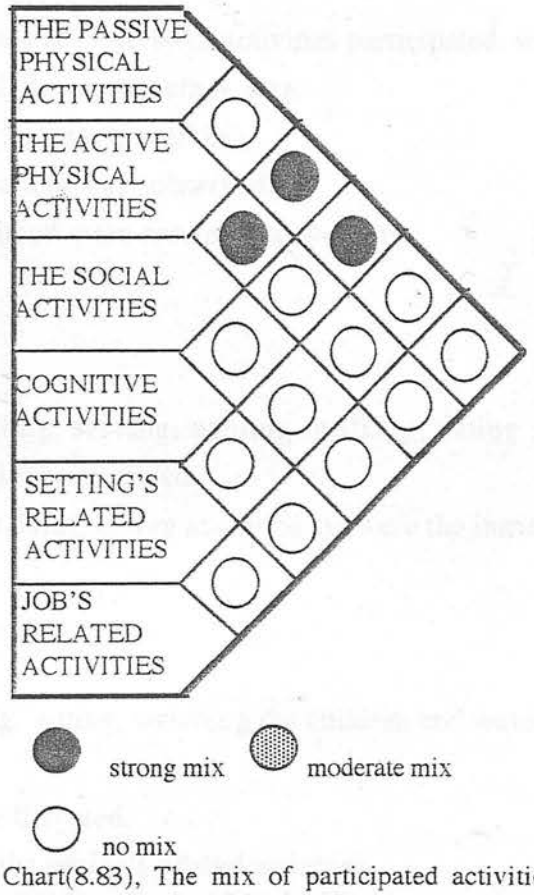
Table (8.26) Behaviour setting synomorphy, HD 14.

○ were not examined ● Weak ● Moderate ● good

The sitting tools in setting HD 14 are in a various types and arrangement. This encourages the physical activities to be participated. Moreover, because the "with" component was fulfilled through the arrangement, the social activities also existed. The cognitive activities also existed in the setting. The learning tools also suit most activities participated. On the other hand, the authentic equipment resulted moderate relation to the physical activities participated.

The activity mix and package:

The mix of activities within groups of participants is shown in chart (8.83). The social activities were strongly mixed with the physical in both patterns. Moreover, the physical activities in the passive pattern were strongly mixed with the cognitive. Between groups, the mix was in terms of passive and active physical activities. Moreover, it was not easy to identify the difference between the main and secondary activities.



Chart(8.83), The mix of participated activities within groups of participants, HD 14.

D-3 Setting 15 (HD 15)

Location: setting HD 15 indicates to El Fayoum corner setting, [figure (8. 39)].

Landscape elements: This setting is a collection of outdoor and an indoor area for eating Egyptian food as pies and other meals. Chairs and tables are distributed in the areas, wood partitions separate the zones. There are three entrances for the setting one from the pedalling boats part, the second from the main route (setting), while the third from the Egyptian setting. Beside the restaurants there are a small area for crazy cars near a small mosque, [figure (8.41)].

Fig. (8.41), the landscape tools in setting HD 15.

Participants' socio-cultural characteristics: The majority was for the second and third stage in life-cycle. Nuclear families groups and couples were noticed in the setting. The difference in sex was balanced.

Participated Activities:

Date: 22/8/1993 **Time:** 6.45 p.m.

Forms of activities:

Individual: the individual activities were participated as serving, working and walking.

Intrinsic: walking, talking, standing, sitting, playing the crazy cars and eating were the intrinsic activities participated.

Group: sitting, talking and eating were the group activities in setting HD 15.

Categories of activities:

Physical: standing or sitting were the only passive patterns of activities participated, while actively participants were either walking and playing the crazy cars.

Social: while involved in the activities participants were talking.

Setting's related: eating and drinking in the setting were observed.

Job's related: members of the maintenance circuit were serving and working.

Date: 23/8/1993 **Time:** 3.45 p.m.

Forms of activities:

Individual: standing, sitting, watching, selling, serving, waiting, walking, eating and drinking were the forms of individual activities participated.

Intrinsic: standing, buying, walking, sitting, talking, eating and drinking were the intrinsic activities in setting HD 15.

Categories of activities:

Physical: participants were passively standing, sitting, watching the children and waiting, while actively others were just walking.

Social: talking was the only social activity participated.

Setting's related: buying, and drinking were the setting's related activities.

Job's related activities: selling, waiting and serving were the job's related activities.

Date: 27/8/1993 **Time:** 8.40 p.m.

Forms of activities:

Individual: serving, playing the crazy cars, watching, eating, walking and sitting were the individual forms of activities.

Intrinsic: sitting, playing the crazy cars, watching, eating, talking, standing and walking were the intrinsic activities.

Group: eating, sitting and talking were the group activities.

Categories of activities:

Physical: watching, standing, eating and sitting were passively participated, while actively participants were either walking or playing the crazy cars.

Social: talking between groups of participants was observed.

Job's related: members of the maintenance circuit were serving food.

Charts (8.84), (8.85) and (8.86) illustrate the relation between the categories of participated activities in setting HD 15 in the three times of observation.

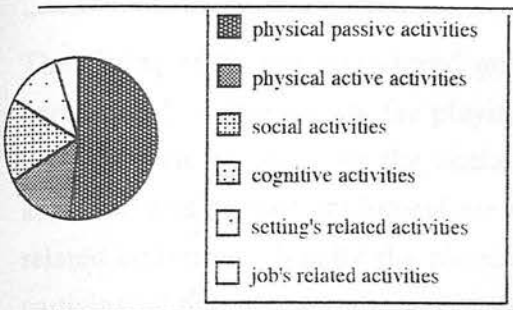


Chart (8.84), Categories of participated activities in setting HD 15 at the first time of observation

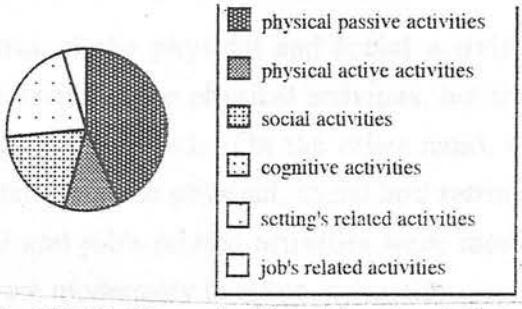


Chart (8.85), Categories of participated activities in setting HD 15 at the second time of observation.

At the three times of observation, the passive activities ranked over others. At the first time, they were followed by the social and setting's related activities. The job's related activities were the least participated. At the second time the passive were followed by both the setting's related and social, then the active physical and finally the job's related.

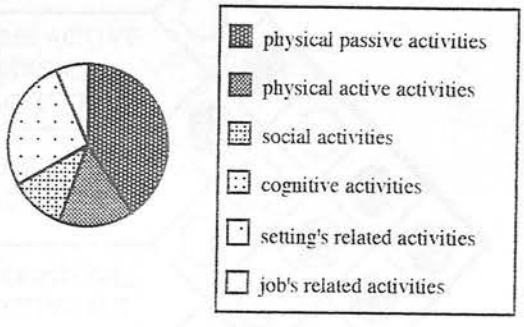


Chart (8.86), Categories of participated activities in setting HD 15 at the third time of observation.

Finally at the third time of observation, the passive physical activities were followed by setting's related then active physical, social and finally job's related activities. Accordingly, the setting is more devoted to the passive physical activities, while both the setting related and active physical activities represent the main activities.

Behaviour setting and the socio-physical aspects: the tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.27) illustrates such relation

	TOOLS			EQUIPMENT		
	sitting	learning	playing	authentic	ground	functional
PHYSICAL ACTIVITIES:	●	○	●	◉	◉	●
SOCIAL ACTIVITIES:	●	○	●	◉	○	●
COGNITIVE ACTIVITIES:	○	○	○	○	○	○
SETTING'S RELATED ACTIVITIES:	○	○	○	◉	○	◉
JOB'S RELATED ACTIVITIES:	○	○	○	○	○	●

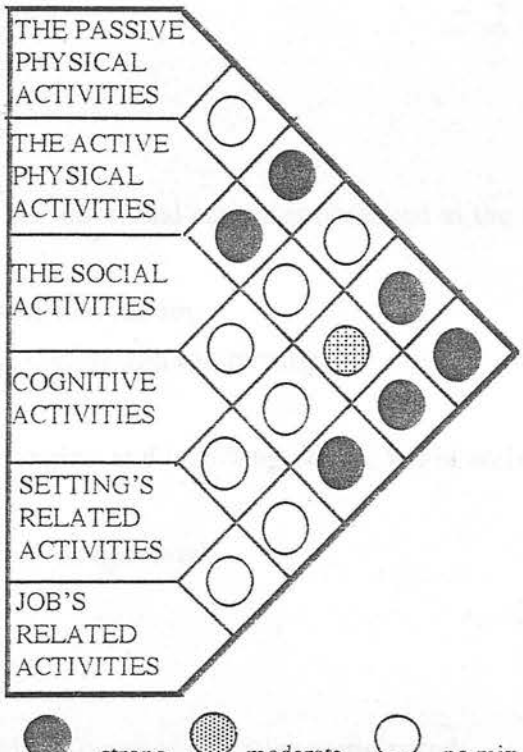
Table (8.27) Behaviour setting synomorphy, HD 15.

○ were not examined ◉ Weak ● Moderate ● good

The sitting tools are considered good in terms of the physical and social activities participated. Similarly are the playing tools in terms of the physical activities, but they are moderate in terms of the social activities participated. On the other hand, the authentic and ground equipment are weak in terms of the physical, social and setting's related activities. Finally the physical, social and job's related activities were mostly participated but the setting's related activities were moderately in terms of function.

The activity mix and package:

The physical passive activities were strongly mixed with the social, setting's and job's related activities. The social activities were also strongly mixed with the active. Moreover, the job's related activities were strongly mixed with both patterns of the physical activities and the social activities. Finally the active was moderately mixed with the setting's related activities. The mix between groups was stronger between the job's related activities and the physical, specially the passive [chart (8.87)]. The setting's related activities were considered main activities as driving the crazy cars and eating.



Chart(8.87), The mix of participated activities within groups of participants, HD 15.

D-4 Setting 16 (HD 16)

Location: New York, the fountain area and the cafeteria setting, represent setting HD 16. It's location is by the south west corner of the garden, [figure, (8.39)] .

Landscape elements: The fountain area is covered with rectangular bricks. Tools and equipment were represented by a big fountain made of rocks and plants where water runs through[1]. The ground of New York area is covered with squared tiles for pedestrians where plants and grass are planted in between. The area includes a water pool with a model of the statue of liberty in, [see figure (8.42)].

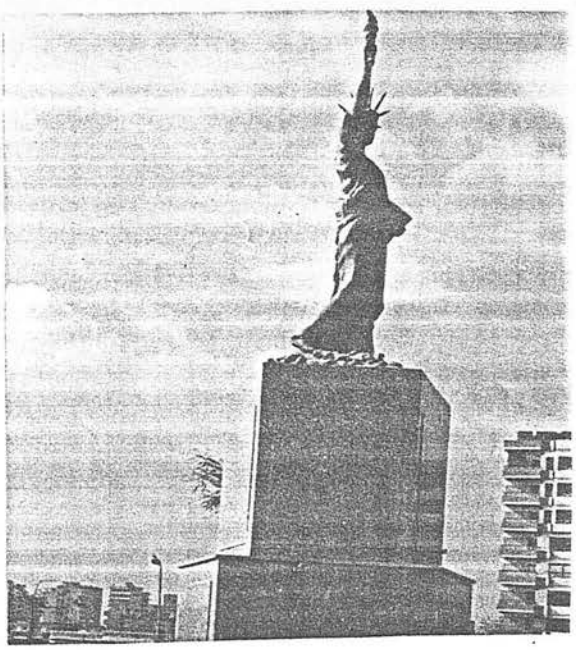


Fig. (8.42), the landscape tools in setting HD 16.

[1] At the three times of observation the fountain was out of order.

Moreover, chairs and tables are distributed in the place, lighting structures are with one bulbs, in addition to some fixed movable wooden benches. The model of the statue of liberty is made of granite, and the pool is surrounded by stone edges.

Participant's socio-cultural characteristics: Groups of couples and nuclear families represented the majority. Most participants were from the second and third group of age. Male were more than females at the three times of observation.

Participated Activities:

Date: 22/8/1993 **Time:** 7.10 p.m.

Forms of activities:

Individual: sitting and watching others were the individual activities observed at the first time of observation.

Intrinsic: intrinsic activities were walking, sitting and talking.

Group: group activities were singing, walking, talking and fun playing.

Categories of activities:

Physical: passively participants were sitting, singing and watching others, while actively they were walking and fun playing.

Social and related: talking between participants was observed.

Date: 23/8/1993 **Time:** 4.10 p.m.

Forms of activities:

Individual: sitting and reading were the individual forms or activities participated.

Intrinsic: sitting and talking were the intrinsic forms of activities participated.

Categories of activities:

Physical: sitting was the only physical activity in the setting.

Social: talking was the only social activity.

Cognitive: an individual was reading in the setting.

Date: 27/8/1993 **Time:** 8.00 p.m.

Forms of activities:

Intrinsic: sitting, talking, walking, and watching others were the intrinsic activities.

Group: sitting, standing, walking, talking, watching others and fun playing were the group activities participated.

Categories of activities:

Physical: sitting, standing and watching others were participated passively, while actively walking and fun playing were observed.

Social: talking was observed.

Charts (8.88), (8.89) and (8.90) illustrate the relation between the categories of participated activities in setting HD 16 in the three times of observation.

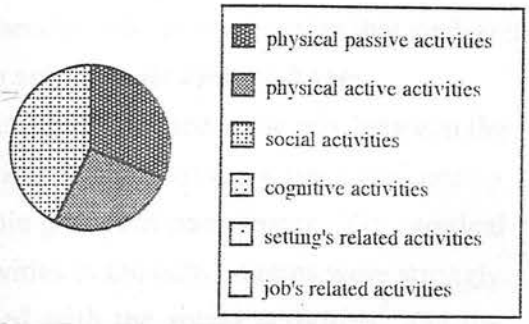


Chart (8.88), Categories of participated activities in setting HD 16 at the first time of observation

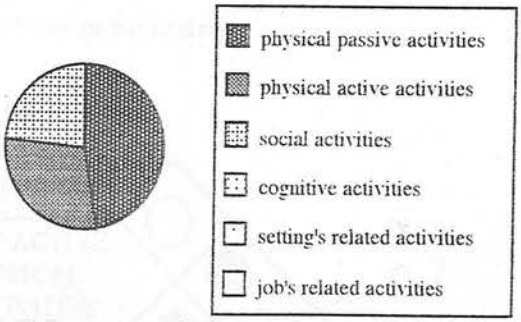


Chart (8.89), Categories of participated activities in setting HD 16 at the second time of observation.

Difference in categories of participated activities is strong between the three times of observation was very strong. At the first time the social activities were highest followed by passive physical then the active physical. At the second time of, the passive activities were highest followed by the social and finaly the cognitive.

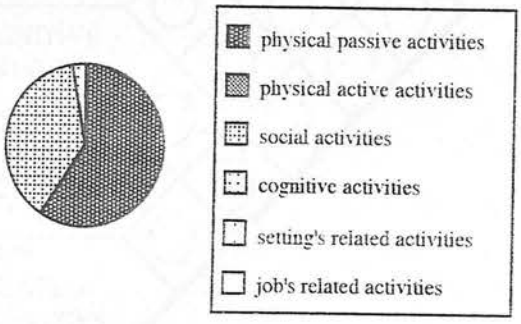


Chart (8.90), Categories of participated activities in setting HD 16 at the third time of observation.

At the third time the priority was for the passive physical activities followed by the active physical and finally the social activities.

Behaviour setting and the socio-physical aspects: the tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy. Table (8.28) illustrates such relation

	TOOLS			EQUIPMENT		
	siting	learning	playing	authentic	ground	functional
PHYSICAL ACTIVITIES:	●	○	○	●	●	●
SOCIAL ACTIVITIES:	●	○	○	●	●	●
COGNITIVE ACTIVITIES:	●	○	○	●	○	●
SETTING'S RELATED ACTIVITIES:	○	○	○	○	○	○
JOB'S RELATED ACTIVITIES:	○	○	○	○	○	○

Table (8.28) Behaviour setting synomorphy, HD 16.

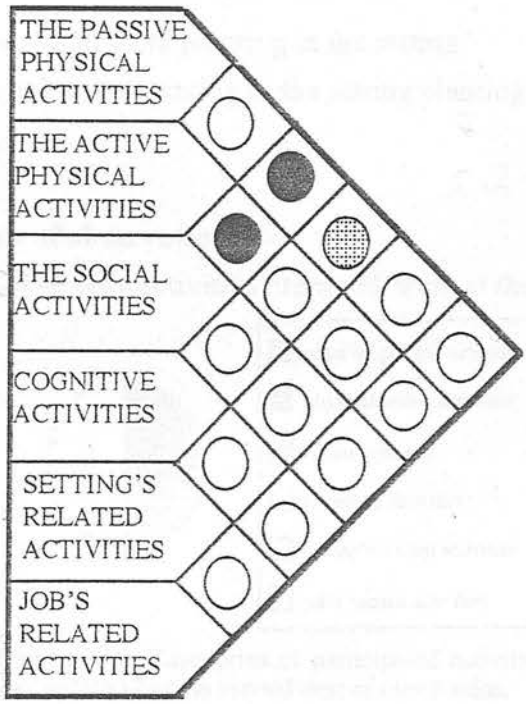
○ were not examined ◍ Weak ◍ Moderate ● good

Although the setting was not efficiently used the evaluation of the tools and equipment is good in terms of the activities participated. Moreover, functionally the physical and

social activities were good but the cognitive activities were moderate. It was only once at the second time of observation that such activities were participated.

The activity mix and package:

Chart (8.91) illustrates the mix between the participated activities in time and setting within groups of participants. The physical activities in the both patterns were strongly mixed with the social activities. On the other hand, the cognitive activities were moderately mixed with the passive physical activities. Between groups, the social and passive physical activities were the strongest in mix. Secondary and main activities were different to identify in setting HD 16.



Chart(8.91), The mix of participated activities within groups of participants, HD 16.

D-5 Setting 17 (HD 17)

Location: the final setting is the storage and garden houses of the garden, [figure (8.39)]

Landscape elements: The materials used are sand, grass and mud. Canopy, intermediate trees and shrubs beside a various selection of plants and trees represent the tools and equipment used, [see figure (8.43)].

Participants' socio-cultural characteristics: The setting is one of the poor settings in terms of the use and participants' appearance. Couples were the only group to be identified beside the maintenance group.

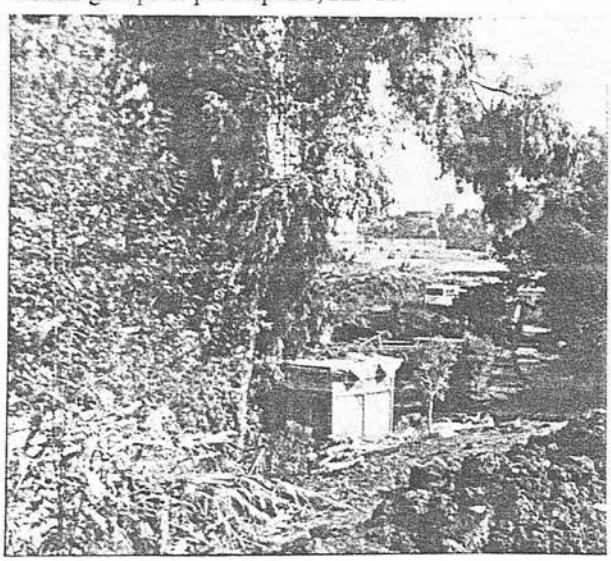


Fig. (8.43), the landscape tools in setting HD 17.

Participated Activities:

Date: 22/8/1993 **Time:** 7.40 p.m.

No activities were observed at the first time of observation.

Date: 23/8/1993 **Time:** 4.35 p.m.

Forms of activities:

Individual: planting and sitting were the individual activities participated.

Intrinsic: standing, planting, talking and sitting, were participated in setting HD 17.

Categories of activities:

Physical: sitting and standing were the only physical activities observed.

Social: talking was also observed.

Setting's related: members of the maintenance circuit were planting in the setting.

Job's related: members of the maintenance circuit were planting in the setting planting.

Date: 27/8/1993 **Time:** 8.35 p.m.

No activities were observed at the third time of observation.

Setting HD 17 was not examined thoroughly. The only activities observed, were at the second time of observation. They were very balanced but not significant, [see chart (92)]. The passive physical, active physical, setting's related and job's related activities were nearly equal. The setting in general is devoted to the maintenance circuit than the operating.

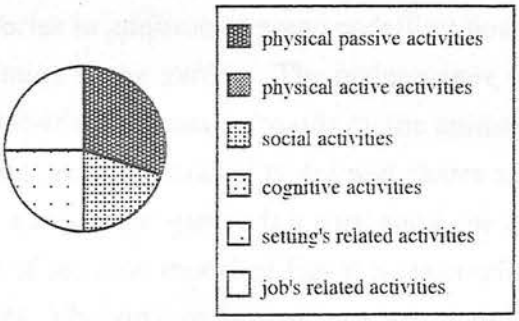


Chart (8.92), Categories of participated activitiesin setting HD 17 at the second time of observation.

Behaviour setting and the socio-physical aspects: the tools and equipment used within the setting were studied with relation to the participated activities to deduce the behaviour setting synomorphy. Table (8.29) illustrates such relation

	TOOLS			EQUIPMENT		
	sitting	learning	playing	authentic	ground	functional
PHYSICAL ACTIVITIES:	○	○	○	○	○	●
SOCIAL ACTIVITIES:	○	○	○	○	○	●
COGNITIVE ACTIVITIES:	○	○	○	○	○	●
SETTING'S RELATED ACTIVITIES	○	○	○	○	○	●
JOB'S RELATED ACTIVITIES:	●	●	●	●	○	●

Table (8.29) Behaviour setting synomorphy, HD 17.

○ were not examined ● Weak ● Moderate ● good

There was nearly no sitting tools which lead to weak relation with most activities. The only activities that have good relation with the tools were the job's related activities. The authentic equipment were very good but only related to the maintenance circuit. Functionally, the physical, social, setting's related and job's related activities were moderately participated.

The activity mix and package:

The activities observed in setting HD 17 were not much, accordingly the mix between such activities within groups was not significant. The physical activities in the passive pattern were strongly mixed with the social and the job's related activities. The job's related activities beside it being mixed with the passive physical was also strongly mixed with the social and setting's related activities participated.

Notes of observation within the fourth zone:

Environmental Aspects:

- The appearance of the maintenance small factories in addition to some pedalling boats which need maintenance represent a visual pollution in the garden. The maintenance of the zone is relatively very poor. Wires are left unburied, the notice boards on the animals caves do not identify their kind and the cafeterias' and restaurants' tables and chairs are not in a good condition. The concept of having a zoo in the garden is a very good one as it attracts children's interests. Moreover the idea of the mini model of Egypt is successful in terms of educational and recreational aspects. The sittings instruments are mainly movable and participants control their location depending on the use and types of groups. However, the number of such elements is very limited compared to the number of participants within setting (HD 14). As the previus zone, fountains were out of order within the settings.

Participated Activities:

Settings HD 14&16 are the only two settings where free play activities are participated. The social and related activities are highest in setting HD14 followed by setting HD15. Setting 17 is the poorest setting in terms of the participated activities. Jobs' related activities are only participated in settings HD 13 and 15. Teaching the workers of Al Hadeeka Al Dawlia reading and writing represents an educational participated activity.

Participants:

Within settings HD13, 14 and 15 families and groups dominated the form of participants within the zone. On the other hand, couples represented the majority in settings 16 & 17.

8.2.4 HD, Summary of findings:

8.2.4.1 The interview, analysis of findings:

The HD garden represents an attracting space not only for residences of the quarter, but also for most Cairenes. The interview that took place at some areas of the quarter showed that the majority are satisfied. Most social groups that visit the garden belong to the family or friends. In addition, school trips are very popular in winter. Although a general satisfaction has been perceived form the interview held with the operating circuit, some ideas for modification were asked for. Spaces for picnicking, more cultural and cognitive facilities, space for football and free ball, all have been felt

required.[1] More playing equipment for children, more benches for the social gathering have been requested. In addition, a lot of complains from the prices of beverage were pointed out. Participants prefer Al Hadeeka Al Dawlia for the diversity of embodied areas, the included various facilities, the enjoyment of greens and generally as it provides space for every one.

On the other hand, complains from the misuse of the garden were recorded from interviewing some members of the maintenance circuit, e.g. running on grass, misusing the playing tools, broken benches, controlling the hidden parts of the garden from unacceptable behaviour. Continuous maintenance and more control on the areas, accordingly are required. Parts of this complains could have been prevented through the design of the garden itself, e.g. avoiding the obscure shapes and arrangement of some settings.

8.2.4.2 Observation's analysis of findings :

For the sake of better monitoring, the HD garden was divided into a number of 17 settings, within four areas on the bases of the K21 scale of the behaviour setting theory. Behaviour observation of the settings was related to the recreation paradigm postulated earlier. A number of findings emerged from the observation with reference to the recreation paradigm determinants.

8.2.4.3. The recreation paradigm of the garden:

Table (8.30) summarise the relation between the determinants of the recreation paradigm. Every rating was given a number and the sum of numbers showed the factor mostly affecting each determinant. The followings were concluded:

1) Participants' socio-cultural characteristics :

Participants represent a fully fledged sample for study. They hold a variety of socio-cultural characteristics through a diversity of; social classes, social groups and stages of life cycle. Friends and family groups represent the majority of social groups, while in terms of life cycle stages, the second and third stage of life cycle predominated the first and finally the fourth stage.

2) Socio-physical environment :

2.a) The social environment:

In terms of socio-physical characteristics, groups of participants were found to dominate. Families were more observed at evenings, while at mornings and afternoons, mothers and children were more observed. In the second area of settings (HD 5, HD 6, HD 7 and HD 8) in addition to the "Egyptian" and "zoo" settings, family's participation were more observed. On the other hand, friends were more participating in the third area

[1] Football matches are often played in street fronts, even in front of the garden itself.

Case of observation	Participants Socio-Cultural Characteristics: Life-cycle stage: first	second	third	fourth	The Setting's Socio-Physical Dimension: The physical environment and the landscape elements: behaviour setting synomorphy: Landscape tools	Landscape equipment	The with component	The without component	The social environment: Type of groups: family	friends	family/ friends	The Behaviour Activities: Form of activities: Individual	Intrinsic	Group	Mass	Categories of activities: Physical	Social	Cognitive	Setting's related	Job's related	Activity mix and package: Main	Secondary	Notes of observation
1	1.10 pm	○	●	◐	none	movable & fixed straight lab shaped benches strictly linear arranged some shaded	lighting objects trees concrete and grass	moderate	strong	●	◐	○	○	●	◐	none	●	◐	◐	◐	○	setting's related and physical activities		The west side of the setting was always occupied with participants more than the east side. participants were directed towards the route more than the green area.
	1.10 am	○	●	◐	none					●	○	none	◐	◐	○	none	●	◐	none	◐	◐			
	1.10 pm	◐	○	●	none					●	◐	○	◐	●	○	none	●	◐	◐	◐	○			
	2.30 pm	●	◐	○	none	straight slab shaped benches strictly linear arranged	subsidiary buildings trees lighting object concrete and grass	weak	strong	●	○	◐	○	●	◐	none	●	◐	none	◐	◐	physical and social activities		Parents were sitting beside harmful landscape equipment to obtain clear view of their children in the children's area.
	1.30 am	●	○	◐	none					●	○	none	◐	●	none	none	●	◐	none	◐	◐			
	2.35 pm	◐	○	●	none					●	○	◐	○	●	◐	none	●	◐	○	◐	◐			
	2.45 pm	◐	●	▨	○	straight slab shaped benches strictly linear arranged, some shaded.	subsidiary buildings iron fences lighting object metal structure	weak	strong	◐	●	○	●	◐	○	none	●	◐	none	none	◐	physical and social activities		The distribution of the sitting tools has no design criteria whether in terms of location or selected type of tools.
	1.55 am	◐	●	○	none					○	●	none	●	▨	none	none	●	◐	none	none	◐			
	2.00 pm	◐	●	▨	○					◐	●	○	●	◐	○	none	●	◐	none	◐	◐			
	3.10 pm	none	none	●	○	iron fences	shrubs and vertical equipment	weak	weak	none	●	none	◐	▨	none	none	◐	○	none	none	◐	physical activities		The poorest setting in the first area in terms of behaviour synomorphy
	2.15 pm	none	none	●	○					none	●	none	◐	▨	none	none	◐	○	none	none	◐			
	4.25 pm	◐	◐	●	○					○	●	none	◐	▨	none	none	◐	○	none	none	none			
	3.35 pm	◐	●	▨	○	straight slab & shaded built in circle benches cluster & right angled arranged	trees lighting object cultural equipment	strong	moderate	○	●	none	○	●	◐	none	◐	●	○	none	none	social activities	physical and cognitive activities	
	2.35 pm	◐	●	▨	○					○	●	none	●	▨	◐	none	◐	●	◐	none	none			
	4.45 pm	◐	○	●	none					◐	●	●	◐	●	○	none	◐	●	◐	none	none			
	4.20 pm	◐	▨	●	○	shading louvres built in straight slab and multi jog shape benches strict linear arranged	greens lighting object granite structure	strong	moderate	○	●	none	○	◐	●	none	●	◐	◐	◐	none	social activities	physical, cognitive and setting's related activities	One of the most popular settings in the area. A variety of tools and equipment exist.
	1.20 pm	◐	●	○	none					●	◐	●	○	●	◐	none	◐	●	◐	◐	none			
	5.45 pm	◐	▨	●	○					●	○	none	○	●	◐	none	◐	●	◐	◐	none			
	1.55 pm	●	none	○	none	secondary benches straight label shape spread arranged playing tools	greens lighting object water tap coloured wood fences	weak	moderate	●	none	◐	●	▨	◐	none	●	◐	none	▨	◐	physical and setting's related activities	social activities	Some safety aspects were not fulfilled in the setting. The number of sitting and playing tools was not sufficient compared to the number of participants.
	2.00 pm	●	none	○	none					●	none	◐	●	▨	◐	none	●	◐	none	▨	◐			
	5.10 pm	●	none	○	none					●	none	▨	○	●	▨	none	●	◐	none	▨	◐			
	4.40 pm	◐	●	▨	○	straight slab shaped benches strict linear arranged. fountain (out of order)	Moroccans style structure lighting objects	moderate	moderate	○	●	none	●	◐	○	none	◐	●	◐	none	none	socia and cognitive activities	physical and job's related activities	
	1.45 pm	◐	●	▨	○					○	●	none	◐	●	○	none	◐	●	◐	none	◐			
	6.10 pm	◐	○	●	none					●	○	○	●	◐	○	none	◐	●	◐	none	◐			
	5.00 pm	○	none	●	none	water pool	greens Japanese monument	weak	weak	none	●	none	●	◐	none	none	●	none	none	none	none	job's related activities	social and physical activities	
	2.00 pm	◐	○	●	none					none	●	none	●	◐	none	none	none	none	none	none	●			
	6.20 pm	◐	○	●	none					●	○	none	none	●	◐	none	●	◐	none	none	none			
	5.10 pm	none	●	○	none	shaded and unshaded straight slab, strictly linear arranged fountain (out of order)	greens wooden wind mill subsidiary shops structures	moderate	moderate	○	●	none	●	◐	○	none	●	○	none	▨	none	physical activities	setting's related activities	
	2.15 pm	none	●	▨	○					○	●	none	○	●	◐	none	◐	●	none	▨	none			
	6.45 pm	○	●	▨	none					○	●	none	○	●	◐	none	●	◐	○	▨	none			
	5.30 pm	none	●	○	none	straight slab benches, strict linear and right angled arranged.	greens sculpture lighting objects iron & wire fences	strong	moderate	○	●	none	◐	●	none	none	◐	●	none	none	○	social activities	physical and job's related activities	
	2.30 pm	none	●	○	none					○	●	none	○	●	none	none	◐	●	none	none	none			
	7.00 pm	none	●	○	none					○	●	none	○	●	◐	none	◐	●	none	none	none			
	5.40 pm	none	●	○	none	wooden louvres straight slab sitting wood benches strict linearly arranged	greens Greece columns lighting objects	weak	moderate	none	●	none	◐	●	none	none	◐	▨	none	none	none	physical activities	social and setting's related activities	Stuttgart part in the setting is neglected in terms of maintenance of the sitting tools.
	2.50 pm	○	●	▨	none					none	●	none	none	●	none	none	◐	●	none	none	none			
	7.20 pm	none	●	○	none					none	●	none	◐	●	◐	none	◐	●	none	◐	none			
3	6.00 pm	●	none	○	none	hanged signs animals no sitting tools	trees cages lighting objects	weak	weak	●	◐	none	◐	●	none	none	◐	●	none	●	◐	setting's related activities	social, physical and job's related activities	The notice boards on the animals caves do not identify the kind. The landscape tools and equipment are considered poor.
	3.05 pm	●	○	▨	none					●	none	none	◐	●	none	none	◐	●	none	●	◐			
	7.45 pm	●	none	○	none					●	none	◐	◐	●	▨	none	◐	●	none	●	◐			
14	6.20 pm	◐	●	▨	○	shades of trees straight slab movable shaded benches strict linear & right angled	greens lighting objects wooden kiosks Egypt's model	strong	strong	●	◐	●	◐	●	▨	none	◐	●	none	◐	◐	social related activities		Some electrical wires were observed unburied. The number of sitting tools is very limited compared to the number of participants in the setting.
	3.25 pm	◐	●	○	none					◐	●	●	◐	●	◐	none	◐	●	○	◐	◐			
	8.10 pm	◐	●	▨	○					●	○	◐	◐	●	▨	none	◐	●	none	◐	none			
15	6.45 pm	◐	●	▨	○	movable wooden chairs and tables mini cars straight slab benches	wooden tent built structure ovens.. etc.	moderately strong	moderately strong	●	◐	none	◐	●	▨	none	◐	●	none	●	◐	setting's related activities	physical social and job's related activities	
	3.45 pm	◐	●	▨	○					◐	●	none	◐	●	◐	none	◐	●	none	●	◐			
	8.40 pm	○	●	▨	none					●	◐	none	◐	●	▨	none	◐	●	none	●	◐			
16	7.10 pm	◐	▨	●	○	fountain (out of order) fixed & movable benches straight slab strict linear, right angle & single jogs	canopy trees, greens, shrubs etc. statue lighting objects	moderate	moderately strong	◐	●	none	◐	●	◐	none	◐	●	none	none	none	physical and social related activities		
	4.10 pm	◐	▨	●	○					◐	●	none	●	▨	none	none	◐	●	none	none	none			
	8.00 pm	○	▨	●	none					none	○	none	none	●	▨	none	◐	●	none	none	none			
17	7.40 pm	none	none	none	none			weak	weak	none	none	none	none	none	none	none	none	none	none	none	none	job's related activities		
	4.35 pm	none	○	●	none					none	●	none	●	▨	none	none	◐	●	none	none	●			
	8.35 pm	none	none	none	none					none	none	none	none	none	none	none	none	none	none	none	none			

General notes of observation:
At all time of observation the weather was hot and temperature was in the range of 32-36.
Humidity was relatively considered high
Generally,the second area which includes HD 5, HD 6, HD 7 and HD 8 is mostly occupied with groups of families while intrinsic groups of friends are mostly observed in the third area which includes HD 9, HD 10, HD 11 and HD 12

Table (8.30), The descriptive determinants of the paradigm in Al Dawlia garden according to behaviour setting survey.

Key of symbols:
● Relatively very high rating
▨ Relatively high rating

	Life-cycle stage				The physical environment and the landscape elements				The social environment			Form of activities				Categories of activities					Activity mix and package		Notes of observation
	first	second	third	fourth	behaviour setting synomorphy		The with component	The without component	Type of groups			Individual	Intrinsic	Group	Mass	Physical	Social	Cognitive	Setting's related	Job's related	Main	Secondary	
					Landscape tools	Landscape equipment			family	friends	family/ friends												
1:00 pm				none	movable & fixed straight lab shaped benches strictly linear arranged some shaded	lighting objects trees concrete and grass	moderate	strong							none						setting's related and physical activities		The west side of the setting was always occupied with participants more than the east side. participants were directed towards the route more than the green area.
10 am				none							none				none			none					
1:00 pm				none																			
1:30 pm				none	straight slab shaped benches strictly linear arranged	subsidiary buildings trees lighting object concrete and grass	weak	strong							none			none			physical and social activities		Parents were sitting beside harmful landscape equipment to obtain clear view of their children in the children's area.
30 am				none							none			none	none			none					
1:35 pm				none											none								
1:35 pm					straight slab shaped benches strictly linear arranged, some shaded.	subsidiary buildings iron fences lighting object metal structure	weak	strong							none			none	none		physical and social activities		The distribution of the sitting tools has no design criteria whether in terms of location or selected type of tools.
55 am				none							none			none	none			none	none				
2:00 pm															none								
2:10 pm	none	none			iron fences	shrubs and vertical equipment	weak	weak	none		none			none	none			none	none		physical activities		The poorest setting in the first area in terms of behaviour synomorphy
2:15 pm	none	none							none		none			none	none			none	none				
2:25 pm											none			none	none			none	none	none			
2:35 pm					straight slab & shaded built in circle benches cluster & right angled arranged	trees lighting object cultural equipment	strong	moderate			none			none	none				none	none	social activities	physical and cognitive activities	
2:35 pm											none			none	none				none	none			
4:45 pm				none											none				none	none			
4:20 pm					shading louvres built in straight slab and multi jog shape benches strict linear arranged	greens lighting object granite structure	strong	moderate			none			none	none				none	none	social activities	physical, cognitive and setting's related activities	One of the most popular settings in the area. A variety of tools and equipment exist.
1:20 pm				none											none				none	none			
3:45 pm											none			none	none				none	none			
3:55 pm		none		none	secondary benches straight label shape spread arranged playing tools	greens lighting object water tap coloured wood fences	weak	moderate		none				none	none			none			physical and setting's related activities	social activities	Some safety aspects were not fulfilled in the setting. The number of sitting and playing tools was not sufficient compared to the number of participants.
1:00 pm		none		none						none				none	none			none					
5:10 pm		none		none						none				none	none			none					
4:40 pm					straight slab shaped benches strict linear arranged. fountain (out of order)	Moroccans style structure lighting objects	moderate	moderate			none			none	none				none	none	socia and cognitive activities	physical and job's related activities	
1:45 pm											none			none	none				none				
6:10 pm				none							none			none	none				none				
5:00 pm		none		none	water pool	greens Japanese monument	weak	weak	none		none			none	none		none	none	none	none	job's related activities	social and physical activities	
2:00 pm				none					none		none			none	none	none	none	none	none				
6:20 pm				none							none	none			none			none	none	none			
5:10 pm	none			none	shaded and unshaded straight slab, strictly linear arranged fountain (out of order)	greens wooden wind mill subsidiary shops structures	moderate	moderate			none			none	none			none		none	physical activities	setting's related activities	
2:15 pm	none			none							none			none	none			none		none			
6:45 pm				none							none			none	none					none			
5:30 pm	none			none	straight slab benches, strict linear and right angled arranged.	greens sculpture lighting objects iron & wire fences	strong	moderate			none			none	none			none	none	none	social activities	physical and job's related activities	
2:30pm	none			none							none			none	none			none	none	none			
7:00 pm	none			none							none			none	none			none	none	none			
5:40 pm	none			none	wooden louvres straight slab sitting wood benches strict linearly arranged	greens Greece columns lighting objects	weak	moderate	none		none	none		none	none				none	none	physical activities	social and setting's related activities	Stuttgart part in the setting is neglected in terms of maintenance of the sitting tools.
2:50 pm				none					none		none	none		none	none			none	none	none			
7:20 pm	none			none					none		none				none			none		none			
6:00 pm		none		none	hanged signs animals no sitting tools	trees cages lighting objects	weak	weak		none	none			none	none			none			setting's related activities	social, physical and job's related activities	The notice boards on the animals caves do not identify the kind. The landscape tools and equipment are considered poor.
3:05 pm				none						none	none			none	none			none					
7:45 pm		none		none						none				none	none			none					
6:20 pm					shades of trees straight slab movable shaded benches strict linear & right angled	greens lighting objects wooden kiosks Egypt's model	strong	strong						none				none			social related activities		Some electrical wires were observed unburied. The number of sitting tools is very limited compared to the number of participants in the setting.
3:25 pm				none										none									
8:10 pm											none			none	none			none					
6:45 pm					movable wooden chairs and tables mini cars straight slab benches	wooden tent built structure ovens.. etc.	moderately strong	moderately strong			none			none	none			none			setting's related activities	physical social and job's related activities	
3:45 pm											none			none	none			none					
8:40 pm				none							none			none	none			none					
7:10 pm					fountain (out of order) fixed & movable benches straight slab strict linear, right angle & single jogs	canopy trees, greens, shrubs etc. statue lighting objects	moderate	moderately strong			none			none	none			none	none	none	physical and social related activities		
4:10 pm											none			none	none			none	none	none			
8:00 pm				none					none		none	none			none			none	none	none			
7:40 pm	none	none	none	none			weak	weak	none	none	none	none	none	none	none	none	none	none	none	none	job's related activities		
4:35 pm	none			none					none		none			none	none			none	none				
8:35 pm	none	none	none	none					none	none	none	none	none	none	none	none	none	none	none	none			

General notes of observation:

At all time of observation the weather was hot and temperature was in the range of 32-36.
Humidity was relatively considered high
Generally,the second area which includes HD 5, HD 6, HD 7 and HD 8 is mostly occupied with groups of families while intrinsic groups of friends are mostly observed in the third area which includes HD 9, HD 10, HD 11 and HD 12.
Except of the environmental aspects for the use of landscape elements in the settings, no other functions were observed neither in the shape or arrangement of these elements.
At most settings, specially within the first, second and fourth area, the edge effect has proven to succeed.

Table (8.30), The descriptive determinants of the paradigm in Al Dawlia garden according to behaviour setting survey.

Key of symbols:

- Relatively very high rating
- Relatively high rating
- Moderate rating
- Relatively weak rating
- Relatively very weak rating

in addition to some parts of the fourth area. It is therefore concluded that activity busy settings attract more participants, specially families, than quieter ones. This was the result of the existence of children playing tools, which in turn attract their families for closer sight. Meanwhile, friends are attracted to obscure settings being quieter.

2.b) The physical environment:

The natural environment: The observation taking place in August 1993, when hot and humid weather was prevalent, requires protection from the undesired weather. During evenings the weather was more pleasant, which in turn raised the intensity of use. Such weather requires shelter from sun to moderate the chemical-ecological quality of the micro climate. Sheltered and unsheltered landscape elements were facilitated in most settings through both natural and man made elements.

The natural landscape elements: Plants are taken good care of, but their location and organisation in the settings were of no function be it; structural, visual in terms of colour, location and groupings. Water fountains were common in many settings, but their visual and psychological effect was absent as they were out of order. Accordingly, the use of natural landscape elements in HD garden, fulfilled the environmental function, while disregarding the structural and visual ones.

The man-made environment: In general, the type of selected benches lacked unity in terms of location, types, materials or colour. The organisation and shape of benches were more devoted to encourage the "without" component through the straight slab shape and strict linear pattern with the exception of few settings as HD 6. The "with" component is achieved in the garden through the existence of movable benches or chairs (HD 14 and HD 15) beside the right angle arrangement or multi jog shape of seats (HD 5, HD 6, HD 11 and HD 16). Accordingly, conversation as a symbol of social activities, was mostly taking place within groups and not between, due to the shape of sitting tools. These benches were occupied most of the time with family and family/friend groups.

2.c) The socio-physical relation:

The act of sitting makes several important general demands on the particular situation, the climate, and the space. These general demands were more cleared in the observation of a various settings in the garden. For example, in setting HD 1 participants were only gathered beside trees in shaded areas. In addition, the shaded, movable benches, which provide a good view of the particular busy areas were the most used ones. When benches are arranged back to back (HD 2 and HD 3), it is always the side facing the path which is used and not the opposite one. Accordingly, it would appear that facilities social exchange benches that and provide good view of surrounding activities are used more than others.

While the "without" component was clearly strong in the linear shaped settings, HD 1, HD 2 and HD 3, the social activities were relatively strong. Accordingly, it would appear that avoidance of strict linear arrangement of seats in linear settings promotes social

exchange. Linear paths are an example of dynamic settings which are almost always busy with diverse activities thus attracting participants to gather socially for watching. This leads to the emergence of secondary activities, such as the social. Accordingly, clusters or multi jogs shapes seats and right angles or cluster arrangement are better equipped for promoting social exchange.

3) The participated activities in the garden:

In the garden, the frequency rate of outdoor activities was lowest during the morning, increases during the afternoon and reach its highest during the evenings. It illustrates as strong relation to climate and working hours. Many activities took place in the garden as social, physical, cognitive and settings' related activities. The intensity of use is related to the space quality and/or available equipment both of which promote social interaction. The participated activities in the seventeen settings are following analysed:

3 a) form of activities:

The intrinsic activities predominated the individual followed by the group ones. The mass activities were not observed in the settings so they were not examined.

3.b) categories of activities:

Social activities are found to be dominant, followed by the physical, the settings related and finally cognitive. The social activities are found to be main being and more participated in the settings, that either strongly or moderately encourage the with component. The only exception was setting HD 1 (the linear dynamic setting) discussed earlier. Active physical activities were mostly participated in the first area embodying both, the main routes and the children playing area. The former shape affords such activity to exist, while the landscape elements provided in the latter support its existence. The rest of the settings included passive physical more than active ones. Both passive and active physical activities were mainly related to the social activities. In general the passive activities were participated more by families and by the last two stages of life cycle, while the active were more participated by friends and the first two stages of life cycles. This proves the expectations sited earlier in chapter three, i.e. the relationship between patterns of participated activities and stage of life-cycle.

The cognitive activities as one way relation activities were always secondary ones. They were more participated in some of the settings which include strong or moderate "without" component as settings (HD 5, HD 6, HD 8 and HD 12). Seclusion allows for cognitive activities, which are provided far in settings of the "with" component.

The setting's related activities represent main activities in four settings, the main route HD 1 because of the presence of the mini taftaf, the children's area HD 7 through the availability of the playing tools, HD 13 the mini zoo for the presence of animals and HD 15 "Al Fayoum" setting for the provision of eating facilities. The mini zoo setting was

the only setting where these activities were the major activities to be participated, as it does not provide any other facility.

The job's related activities could be classified into three categories. The first is commercial, through selling food, toys, etc. The second facilitates for the presence of landscape tools and equipment as watering plants. Finally the third is more directed to the operating circuit through preventing participants' unacceptable behaviour in obscure settings, which include strong "without" component.

8.3 Case Study III Hadikat Al Azbakyyia: Abdeen Quarter

Al Azbakyyia garden represents the third case study. This garden is of Western design genesis, although the existed design is different than the original. As the previous cases, the 'Azbakyyia garden' will be examined through applying the behaviour setting theory with relation to the factors of the recreation paradigm, mentioned in the theoretical part. First, through observation, the socio-cultural characteristics of participants will be analysed. Second, the environment of both the community and the garden will be examined. Finally the participated activities in the garden will be studied. Accordingly, the followings represent the analysis of the three determinants' components with relation to the behaviour settings' theory.

8.3.1 The socio-physical environment.

8.3.2 The socio-cultural determinant of participants.

8.3.3 The participated activities.

8.3.1 The Socio-Physical Environment:

The environment will be studied through the social and physical, both will be analysed at three scales; the quarter, the site and the garden. The analysis will be deduced as follows:

8.3.1.1 The quarter.

8.3.1.2 The site.

8.3.1.3 The garden.

8.3.1.1 Abdeen Quarter:

The quarter of Abdeen is part of the western city, community II according to Abu-Lughod's classification. It represents Cairo central business district. Commercial, official and some cultural buildings are centralised at this district as, Cairo's puppet theatre and the national theatre. Residents of the quarter are classified as middle class, the majority of pre-residential apartments are replaced by clinics and offices.

8.3.2.1 Residents of Abdeen district:

As mentioned earlier, the district is part of community II which is classified as middle class. The district is mainly commercial. Most participants are mainly workers, owners or visitors. Accordingly, they are considered temporary users and not permanent.

8.3.2.2 Al Azbakyyia garden's visitors:

Al Azbakyyia garden is a very old and well known garden which represents a very important open space in a crowded district. The garden attracts visitors and users from within and outside the district. Through the interview most respondents were either workers in shops or visitors from outside the district. Moreover, the maintenance circuit explained that the garden is opened temporary for participants after a long preparation period.[1]

8.3.3 The Activity Taking Place:

The participated activities will be analysed through two scales as follows:

8.3.3.1 The Quarter.

8.3.3.2 The garden in terms of behaviour settings.

8.3.3.1 The Quarter:

The activities taking place within the quarter are different than those in the previous cases. Most types of commercial use exist in the quarter; peddlers, shops, shopping centres, cultural buildings, coffee houses, restaurants, cafeterias and take away food stores. The streets are always busy with people buying and working.

8.3.3.2. The garden and behaviour setting:

The plan of the garden has changed and shrank than the original design. The existing situation of the garden was then analysed through its division to areas and then applying the behaviour setting technique. The garden was first divided physically into three areas according to its environmental shape, [see figure (8.45)].

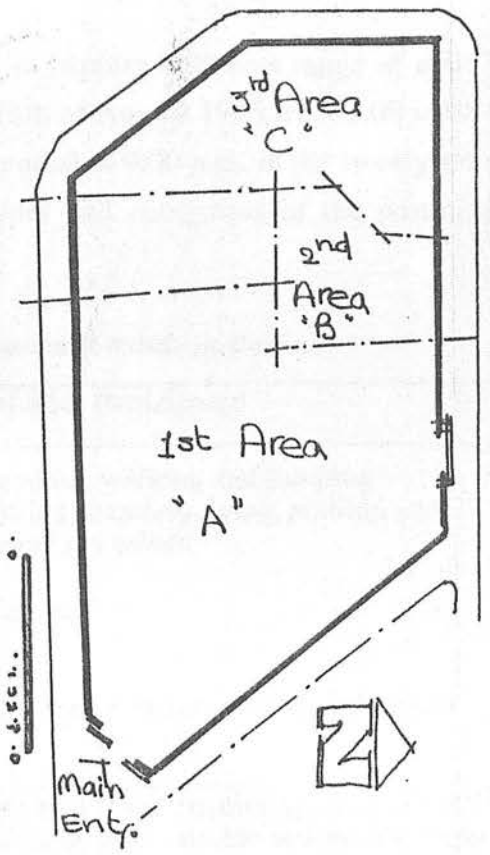


Fig. (8.45), division of areas in AZ garden.

[1] The garden has been resently re-designed, it was supposed toopen in 1993, but this was prosponed because of the underground work taking place at the north side of the garden. At the time of obseraation the garden was opened, though not officially.

One by the east the other by the west and the third is in-between. The physical differences between the three areas are in terms of shape, location and organisation of landscape elements. Two areas, the east and the one in-between, are then divided to settings behaviourally according to the K21 scale. The west area is analysed in terms of the landscape elements as participants were not allowed to use it yet. The K21 rating of the studied areas showed that both areas could be divided into five settings. Figure (8.46) shows the division of both the areas and settings. No particular facilities are observed to encourage various categories of activities.

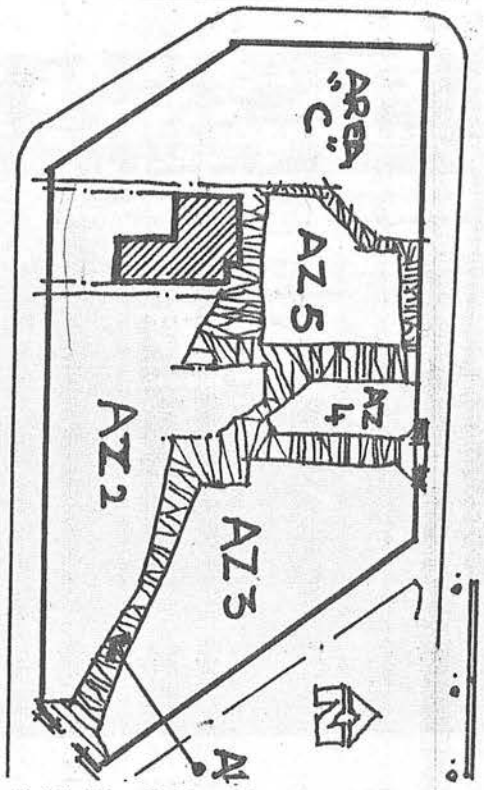


Fig. (8.46), The division of settings in AZ garden according to behaviour setting survey.

Two observational times were chosen in order to capture a diverse range of activities within the garden. The first was in the twenty fifth of August 1995 from 2.00 until 4.30 p.m., while the second started at 6.00 p.m. and ended at 9.00 p.m. in the twenty seventh of August 1995. Table (8.31), shows the types and categories of the participated activities in Al Azbakyyia garden.

Table (8.31) Types of activities engaged in Al Azbakyyia Garden.

Categories of Activities and Patterns	Activities Participated
Physical activities* (Mainly active)	-Running, walking and jumping - Sitting, standing, lying, waiting and watching others.
Social and related activities ** (Mainly passive)	- Talking
Job's related activities *** (Mainly passive)	- Observing and controlling behaviour

* These activities refer to non-organised sports that don't require space and facilities. Like the previous cases the garden does not embody any suitable spaces for organised sports and games.
** Social activities indicate to the ones that are participated in a two way relation.
*** Jobs activities refer to the maintenance circuit in the behaviour setting theory.

A) The First Area: East the garden:

The division of the four settings within the first area is shown in figure (8.46).

Fig. (8.47), The first area's settings in AZ garden.

A-1 Setting AZ 1

Location: The first setting represents the promenade in the garden. It connects the three areas and is shown in figure (8.47)

Landscape elements: The ground is covered with sand. Straight slab mosaic and shaded wooden benches are scattered in the setting in a strict linear arrangement with no consideration to any sociable behaviour in terms of distance whether in between or opposite.

Participants' socio-cultural characteristics: The majority of participants are males who belong to the third stage of life-cycle.

Participated Activities:

Date: 25/8/95 Time: 2.00 p.m.

Forms of Activities:

Individual: Individuals were sitting, watching others, an old lady was preparing tea while others were drinking.

Intrinsic: intrinsic groups were walking and chatting.

Categories of activities:

Physical: actively, participants were walking, while passively others were sitting.

Social and related: chatting and drinking tea were the only social related activities.

Job's related: individuals from the maintenance circuit were watching others behaviour.

Date: 27/8/95 Time: 6.00 p.m.

Forms of activities:

Individual: walking, sitting, watching others and preparing tea were the individual participated activities.

Intrinsic: intrinsic groups were chatting, walking, lying, watching others and sitting.

Categories of activities:

Physical: participants were passively sitting, lying and watching others, while actively they were walking.

Social and related: chatting and drinking were the only social observed activities.

Job's related: some members of the maintenance circuit were watching others' behaviour.

Between both times of observation the only differences were in terms of the rate of participation where at the second time the garden was more occupied with participants. At both times of observation the active physical activities were dominant

Behaviour setting and the socio-physical environment: the tools and equipment used within the setting were studied with relation to the participated activities in order to deduce the behaviour setting synomorphy, [see table (8.32)].

	TOOLS		EQUIPMENT		
	sitting	playing	authentic	ground	functional
PHYSICAL ACTIVITIES	●	○	●	●	●
SOCIAL ACTIVITIES:	●	○	●	○	●
JOB'S RELATED ACTIVITIES:	●	○	●	○	○

Table (8.32), behaviour setting synomorphy in setting AZ 1

○ were not examined ● Weak ● Moderate ● Good

The tools and equipment in the setting are considered poor. Sitting tools were the only elements observed in the setting. Benches are in an anti-social shape and arrangement. They are straight slab shaped, strictly linearly arranged and the opposite and sided distances are far so preventing social exchange to take place.

The activity mix and package:
The social and physical activities were relatively mixed in the setting. The physical are considered the main activities, which is supported by the linear shape of setting AZ 1.

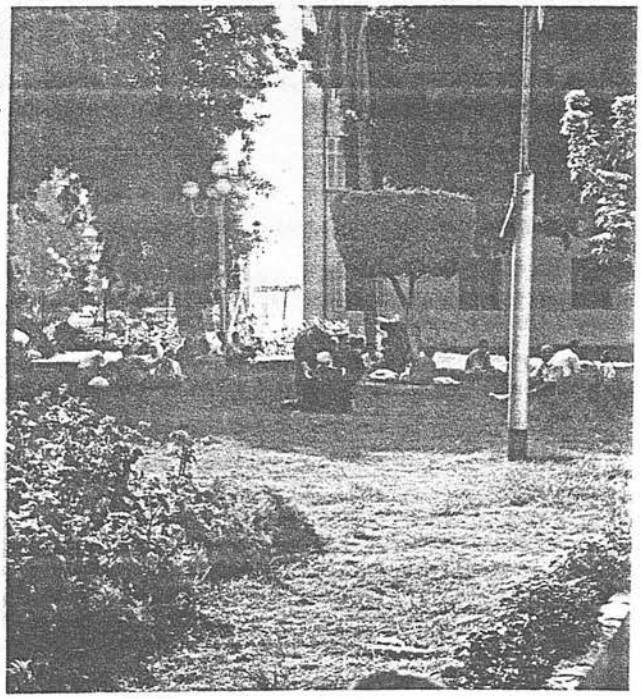


Fig. (8.48), setting AZ 2 in Al Azbakyyia garden.

A-2 Setting 2 (AZ 2):
Location: Setting AZ 2 represents the south setting in the first area, [figure (8.48)].
Landscape elements: the setting is composed of two green spaces divided by part of setting AZ 1. Canopy, palm and intermediate trees in addition to shrubs are planted in the setting beside flower beds. Lighting elements are bulb shaped.

Participants' socio-cultural characteristics: Most participants are couples who belong to the third stage of life-cycle. Few children were observed. Because of its relation to the road and entrance, setting AZ 2 is relatively the most used setting.

Participated Activities:

Date: 25/8/95 Time: 2.20 p.m.

Forms of Activities:

Individual: few individuals were lying on the grass.

Intrinsic activities: Most participants were sitting and lying on the grass.

Categories of Activities:

Physical: participants were sitting and lying passively.

Social and related: chatting and drinking were the only social activities in the setting.

Date: 27/8/95 Time: 6.20 p.m.

Forms of Activities:

Individual: A few individuals were lying on the grass, and children were running.

Intrinsic: intrinsic groups were sitting, chatting and lying.

Categories of Activities:

Physical: passively participants were sitting and lying, while actively few children were running.

Social and related: chatting and drinking tea were observed in the setting.

Between both times of observation, in addition to the difference in the rate of participation, only at the second time of observation children were observed. At both times of observation the social activities were dominant.

Behaviour setting and the socio-physical environment: the tools and equipment within the second setting were studied with relation to the participated activities through the behaviour setting synomorphy, [see table (8.33)].

	TOOLS		EQUIPMENT		
	sitting	playing	authentic	ground	functional
PHYSICAL ACTIVITIES	○	○	●	●	○
SOCIAL ACTIVITIES:	○	○	●	●	●

Table (8.33), behaviour setting synomorphy in setting AZ 2

○ were not examined ◍ Weak ◍ Moderate ● Good

No sitting or playing tools are observed in the setting, so they were not examined. Functional elements are considered good because participants were grouped by shaded spots provided on the green spaces. This setting was relatively the most used setting in comparison to the rest, although it is the most noisy setting due to its location by the road. On the other hand, its location to the entrance and the activities taking place outside the garden could be the attracting aspect for participants' preference.

The activity mix and package:

The social and passive physical activities are strongly mixed in the setting. The social activities are considered the main ones.

A-3 Setting (AZ 3):

Location: The north east setting in the first area represents setting AZ 3, [see figure (8.46)].

Landscape elements: the setting is divided, by minor pedestrian routs, into four nearly rectangular green spaces and a circular green space in between, [figure (8.49)]. Intermediate, palm and few canopy trees in addition to flower beds are planted in the green spaces. A marble column is focused on by direct low lighting objects. Straight slab mosaic seats are scattered at one side of the circular pedestrian rout. Lighting objects are bulb shaped.

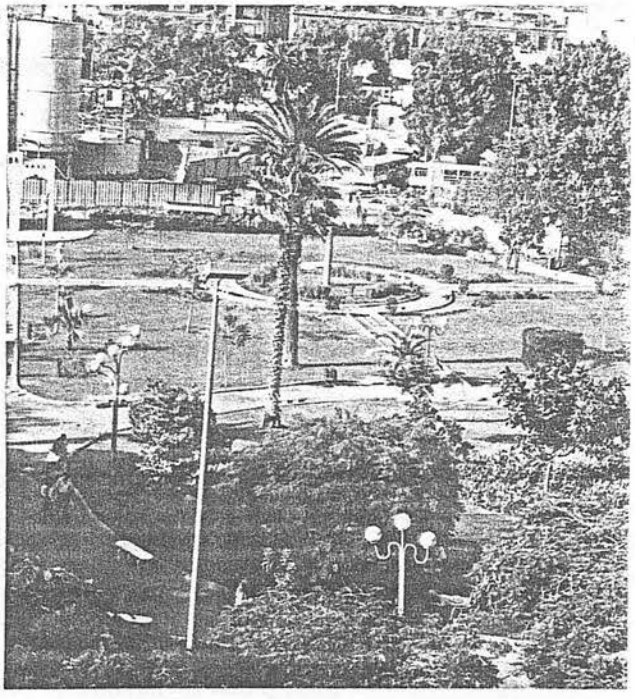


Fig. (8.49), The four spaces in setting AZ 3.

Participants' socio-cultural characteristics: Participants belong either to the second or third stage of life-cycle. The latter represent relatively the majority.

Participated Activities:

Date: 25/8/95 **Time: 2.35 p.m.**

Forms of activities:

Individual: sitting, lying, walking, eating and watching others were observed as individual forms of activities.

Intrinsic: sitting, chatting, lying and walking were observed.

Categories of activities:

Physical: sitting and lying were passively participated, while actively others were walking.

Social: chatting and eating were the only social activities observed.

Date: 27/8/95 Time: 6.40 p.m.

Forms of activities:

Individual: running, walking, sitting, lying and eating were observed in the setting.

Intrinsic: chatting, eating, walking, sitting and lying were observed in setting AZ 3.

Categories of activities:

Physical: actively, participants were walking and running, while actively others were sitting and lying.

Social and related: chatting and eating were observed in the setting.

Between both times of observation, differences were noticed in terms of the rate of participation. At the second time the rate was relatively higher.

Behaviour setting and the socio-physical characteristics: The tools and equipment in the setting were studied in terms of the participated activities are shown in table (8.34).

	TOOLS		EQUIPMENT		
	sitting	playing	authentic	ground	functional
PHYSICAL ACTIVITIES	○	○	◍	●	●
SOCIAL ACTIVITIES:	◍	○	◍	●	○

Table (8.34), behaviour setting synomorphy in setting AZ 3

○ were not examined ◍ Weak ◍ Moderate ● Good

The authentic equipment, represented in this setting by trees, were not huge enough to create large spots of shades, except for the south part of the setting which includes canopy trees. The arrangement and shape of sitting tools were not suitable for the social activities. They are straight slab mosaic benches arranged strict linear, and even the distance between the side and opposite benches did not encourage any social exchange to exist. This setting is relatively considered the weakest in terms of participation.

The activity mix and package:

Both the physical and social are considered main and were relatively strongly mixed.

A-4 Setting 4 (AZ 4)

Location: Setting AZ 4 represents the space between setting AZ 3 and AZ 4 north the garden, see figure(8.46).

Landscape elements: the setting represents a green space with some palm trees and flower beds. Bulb shaped lighting objects were also observed in the setting.

Participants socio-cultural characteristics: Participants were mostly couples who represent the second and third stage of life-cycle, in addition to few children.

Participated Activities:

Date: 25/8/95 Time: 3.00 p.m.

Forms of activities:

Individual: Individuals were lying or sitting passively on the grass.

Intrinsic: chatting, lying and sitting were observed.

Categories of activities:

Physical: sitting and lying were the only passive physical activities in setting AZ 4.

Social and related: chatting was observed in the setting.

Date: 27/8/95 Time: 7.00 p.m.

Forms of activities:

Individual: individuals were sitting or lying in the setting.

Intrinsic: chatting, lying, sitting, standing and running were observed in setting AZ 4.

Categories of activities:

Physical: actively, participants were running, while they were lying, standing and sitting passively.

Social and related: chatting was the only social activity observed in the setting.

Differences between both times of observation was in terms of the rate of participation in addition to stages of life-cycle. Participation was relatively more and children were observed only at the second time of observation.

Behaviour setting and the socio-physical environment: the landscape tools and equipment used in setting AZ 4 were examined in their relation to the participated activities through the behaviour setting synomorphy as shown in table (8.35):

	TOOLS		EQUIPMENT		
	sitting	playing	authentic	ground	functional
PHYSICAL ACTIVITIES	○	○	◍	●	
SOCIAL ACTIVITIES:	○	○	◍	●	

Table (8.35), behaviour setting synomorphy in setting AZ4

○ were not examined ◍ Weak ◍ Moderate ● Good

The edge effect at this setting is very strong, especially at the west edge which is the only shaded side. No sitting nor playing tools were observed, accordingly they were not examined. Plants were totally relatively immature. Attempts to decorate the setting with colourful plants were notices in terms of colour, dark red plants were arranged at the edges of the setting.

The activity mix and package:
Both the social and physical activities are strongly mixed. The social are considered main.

B-1 Setting 5 (AZ 5):
Location: AZ 5 is the in-between area in the garden and it is represented by one setting, see figure (8.46).

Landscape elements: the setting includes the marble fountain which was built under the reign of Khedivy Ismaiil in 1872. The fountain was out of order and the pool connected to it was dry. An old metallic western style structure is observed in the setting, [see figure (8.50)]. Palm trees two wooden bridges and some mosaic and wooden benches are located in the setting. Lighting objects are direct low ones and bins are either wooden or green metallic.

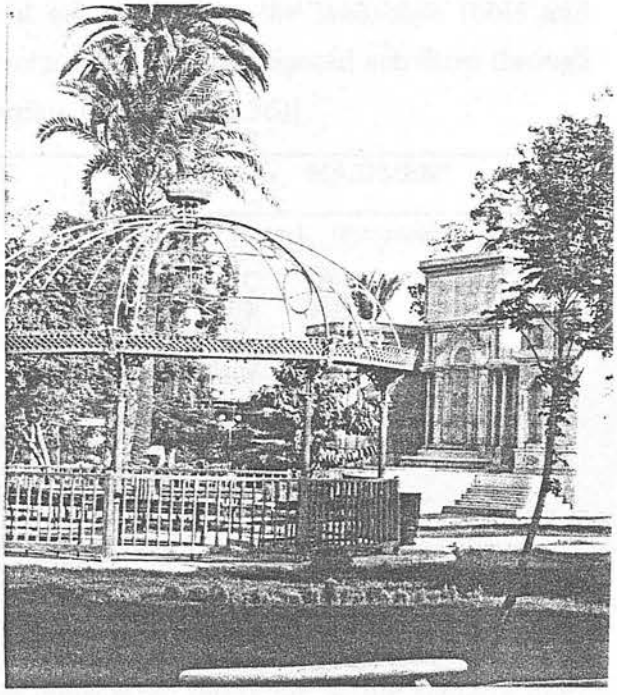


Fig. (8.50), landscape elements in setting AZ 5.

Participants' socio-physical characteristics: Participants represent either the first or third stage of life-cycle.

Participated Activities:
Date: 25/8/95 Time: 3.20 p.m.
Forms of activities:
Individual: A female from the third stage of life-cycle was sitting.
Intrinsic: A couple of participants were sitting and chatting while three children were jumping beside the fountain.

Categories of activities:
Physical: participants were either sitting passively or running actively.
Social and related: only chatting was observed.

Date: 27/8/95 **Time: 7.20 p.m.**

Forms of activities:

Individuals: sitting and walking were the individual participated activities.

Intrinsic: chatting, sitting, walking, standing and running were observed at the second time.

Categories of activities:

Physical: walking and running were the active physical while sitting and standing were the passive.

Social and related: only chatting was observed.

Between both times of observation the only difference was in terms of the rate of participation. The garden at the second time was more occupied with participants.

Behaviour setting and the socio-physical environment: the landscape tools and equipment in the setting were studied with relation to the participated activities through the observation of behaviour setting synomorphy, [see table (8.36)]

	TOOLS		EQUIPMENT		
	sitting	playing	authentic	ground	functional
PHYSICAL ACTIVITIES	●	○	●	●	●
SOCIAL ACTIVITIES:	●	○	●	●	○

Table (8.36), behaviour setting synomorphy in setting AZ 5

○ were not examined ● Weak ● Moderate ● Good

In terms of landscape elements, setting AZ 5 differs than the previous settings. the existence of the fountain, pool, bridges and the back-to-back shaded benches created the differences. The sitting tools are physically considered moderate, while socially their arrangement and shape do not encourage any social interaction to take place. The fountain as an authentic equipment, is evaluated good although it was out of order, so the psychological and visual function of water was absent.

The activity mix and package:

The social and physical activities specially the passive were strongly mixed and are considered main activities.

C- The third Area:

Location: As mentioned earlier, the third area is in the east side of the garden, see figure (8.46).

Landscape elements: During the observation, participants were not allowed to use the area, accordingly, this area is studied through the arrangement and shape of landscape elements.

The area is divided by a promenade to three green spaces, [figure (8.51)], spaces (1), (2) and (3) showed in the figure. The latter is a sloped space (small up-hill) with old and various types of trees and low height direct lighting objects. The two other spaces are green spaces that embody some intermediate and canopy trees beside bulb lighting objects.

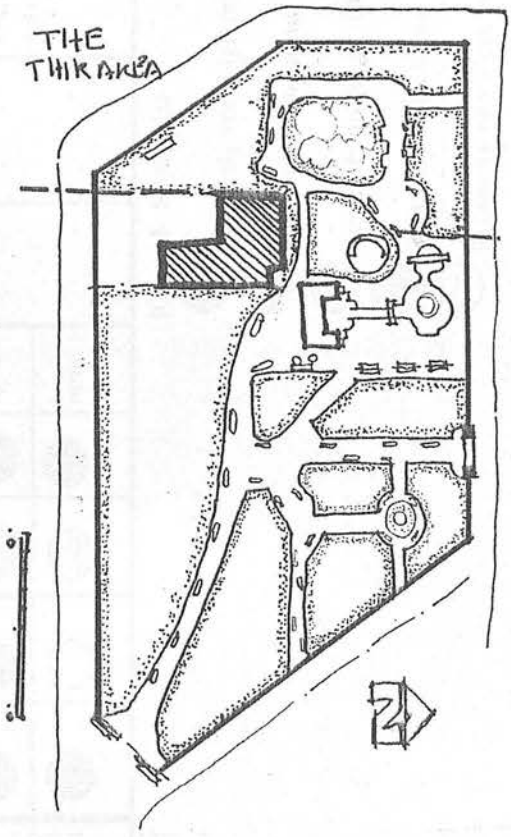


Fig. (8.51), the environmental division of the third area of AZ garden.

The landscape elements in the promenade are in the shape of straight slab mosaic benches, mostly arranged in a strict linear organisation. Benches in the north part of the promenade are arranged in groves some of which prevent users from sitting, [figure (8.52)]. Lighting objects are both direct low height and bulb shaped. Some garbage bins are scattered in the area.

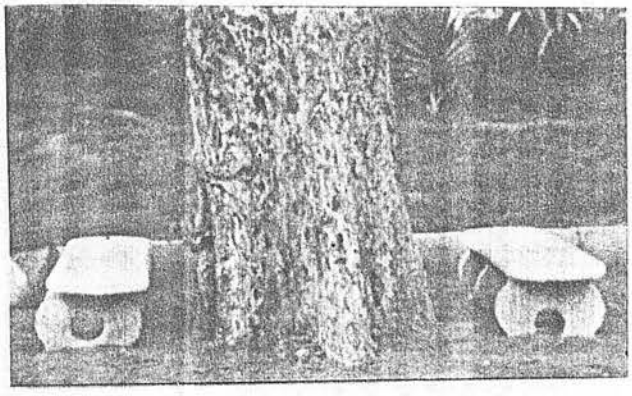


Fig. (8.52), part of the landscape elements in the third area of AZ garden.

8.3.4 Summary of findings:

8.3.4.1 The interview, analysis of findings:

The garden represents an attracting open space the for users of the over crowded district of Abdeen district. The interview that was held with participants indicated the need for facilities, e.g. cafeterias, benches for social gathering, more shaded areas. On the other hand, the maintenance circuit, complained from the misuse of landscape elements, specially the natural.

Setting	Time of observation	The physical environment and the landscape elements: Behaviour setting synomorphy – Landscape tools	Landscape equipment	encourage the with component	encourage the without component	The social environment: Types of groups – family	friends	family/ friends	Forms of activities: Individual	Intrinsic	Categories of activities: Physical	Social	job's related	Activity mix & packing: Main	Secondary	Notes of observation
AZ 1	2.00 p.m.	straight slab mosaic benches strict linear arranged	the ground is sand lighting objects, bulb shape	weak	moderate	●	●	none	●	●	●	●	●	physical and job's related	social	The only occupied benches were the shaded.
	6.00 p.m.					●	●	none	●	●	●	●	●			
AZ 2	2.20 p.m.	none	Canopy, intermediate plants & shrubs bulb shape lighting objects	——	——	●	●	none	●	●	●	●	none	social	physical	The most used setting The edge effect is very strong
	6.20 p.m.					●	●	none	●	●	●	●	none			
AZ 3	2.35 p.m.	straight slab mosaic benches, strictly linear arranged	intermediate & palm trees & flower beds marble columns & direct lighting objects	weak	moderate	●	●	none	●	●	●	●	none	social	physical	The least used setting
	6.40 p.m.					●	●	none	●	●	●	●	none			
AZ 4	3.00 p.m.	none	green space with palm, intermediate trees and flower bed bulb light objects	——	——	●	●	none	●	●	●	●	none	social	physical	The west side of the setting has a strong edge effect.
	7.00 p.m.					●	●	none	●	●	●	●	none			
AZ 5	3.20 p.m.	straight slab mosaic benches, shaded wooden benches strict linear arranged	An old fountain, bins, metallic structure, two wooden bridges, trees, direct & bulb shape lighting	weak	moderate	●	none	none	●	●	●	●	none	social	physical	The fountain was out of order.
	7.20 p.m.					●	●	none	●	○	●	●	none			

General notes of observation:

* The physical activities in setting AZ 1 is considered main as the setting is linear so the environment affords such activity.
* Setting AZ 2 is the most used one although in terms of chemical-ecological quality it is negatively evaluated due to its location by the road; noise, crowd, and air pollution.
* Setting AZ 3 landscape elements are still immature so the shaded areas are limited.
* The man-made landscape elements in the third unused area are arranged in a strict linear form and are shaped as straight slab mosaic unshaded benches. Some groves are observed in the north side of the promenade where benches are illustrated.
* No group or mass activities were observed. In addition, only the physical, social and job's related were the only participated activities.

Key of Symbols:

● Relatively very high rating

● Relatively high rating

● Relatively moderate rating

● Relatively weak rating

○ Relatively very weak rating

Table (8.37), The descriptive determinants of the paradigm in Al Azbakyyia garden according to behaviour setting survey.

8.3.4.2 The Observation, analysis of findings:

In the context of the behaviour setting theory observation survey has concluded six settings within two areas. An extra area in the western part, was analysed according to the landscape elements only, as it was not used at the observation time.[1] Setting's observation was then related to the determinants of the recreation paradigm, where a number of findings emerged.

8.3.4.3 Behaviour setting survey and the recreation paradigm of AZ garden:

The outcome of the findings for relating the observed settings to the determinants of the recreation paradigm are displayed in table (8.37). Participation rate indicated the factors mostly affecting each determinant in the paradigm. The followings were concluded from the table and observation:

1) Participants' socio-cultural characteristics:

Participants are mostly attracted form Abdeen quarter. They are either visitors who came for shopping or workers. They are part of the lower and lower-middle social class, so they represent an appropriate sample. Most of which reflect the third and second stage of life-cycle, while few are from the first stage.

2) The environment socio-physical characteristics :

2.a) The social environment:

Friends' groups are found to be participating more than family ones. On the other hand, family/friends group are not examined as they were not observed. The commercial characteristic of Abdeen district, where the garden is allocated, appears to support such finding.

2.b) The physical environment:

The natural environment: The observation of AZ garden took place in August 1995. The weather was hot and humid, hence the garden was felt to require specific landscape elements to moderate the chemical-ecological quality of the environment. Because such moderating was not totally achieved (only in settings AZ 1, AZ 2 & AZ 5) participants were more observed at evenings than afternoons.

The natural landscape elements: A slight intention towards arranging plants in terms of colour was observed; dark red plants are gathered and arranged at edges of some settings (AZ 3 & AZ 4). No other plants were noticed to function, structurally or visually. Environmentally, the only two settings which succeeded in providing shaded areas, through the use of canopy trees, are AZ 1 & AZ 2. In addition, the fountain

[1] Working in the underground was restricting the use of this area.

represented an authentic element, although its psychological and visual effect was absent as it was out of order.

The man-made landscape elements: Unity is noticed in selecting type, shape and arrangement of most seats. The mosaic straight slab benches are arranged in a strict linear pattern which strongly support the "without" component to take place. Very few wooden shaded back to back benches are observed in setting AZ 5, which are also arranged in a strict linear pattern.

2.c) The socio-physical relation:

Social gathering were more participated on grass settings as AZ 2, as participants have the chance to arrange their position freely for the lack of landscape elements. On the other hand, individual and intrinsic groups of participants used settings which embody these elements. The edge effect at the south side of the garden has a greater participation and preference, than the central and quieter settings. Concentration by natural elements, such as trees also was observed. In setting AZ 5 where wooden shaded benches are arranged back to back, (side faces the path, while the other faces the open space or fence), the side which provides view of other participants are used more. This means that participants are more attracted to watching others as and outdoor behaviour. In conclusion, settings which are near the entrance and are related to other activities are more occupied than quiet far settings. In other words, both the edge effect and observation of others have once again proven to have a strong effect on spatial behaviour in recreation.

3) The participated activities in the garden:

As mentioned earlier, due to the impact of the natural environment, the frequency of participated activities in the garden was found to be lowest during afternoons, while increasing during evenings. The participated activities are then analysed through the followings:

3.a) Form of activities:

The individual activities are slightly more participated than the intrinsic ones. Mass and groups activities, are not observed so they were not examined. This could be due to the commercial characteristic of the district which encourage participation of individuals, and couples more than family groups.

3.b) Categories of activities:

Categories of activities in terms of ranks demonstrated that social activities have the priority, followed by the physical and finally the job's related activities. The latter was only participated in setting AZ 1. The social activities represent the main activities

in most settings except in setting AZ 1, which was more devoted to the physical and job's related activities. The social activities are more observed in green space settings; AZ 2, AZ 3 and AZ 4, while the physical activities are more participated in linear paths as in AZ 1. In conclusion, the affordance of both landscape elements and shape of settings largely influence the participated activities.

Although the landscape tools and equipment encourage the "without" component to exist, the social activities were mostly participated. This finding provides some support the need for a better arrangement of landscape elements, in order to provide and encourage the suitable activities.

8.2.4. Summary:

Chapter eight has addressed three of the four determinants of the recreation paradigm, for the examined sample, known as the socio-cultural characteristics of participants, the socio-physical environment and the participated activities. Analysis was carried out through the behaviour setting survey. As early mentioned, the outcomes of the observation analysis in the case study are only valid in the particular zone of observation time and should not be taken generally. In other words, the validity of the outcomes is only accepted in the particular period of observation taking in consideration that it did not cover a large zone of time; changes of seasons, various occasions, special events, weekends, weekdays and day hours as suggested by Barker. Moreover, the objective of the third part of the research is to examine the applicability of the quantification tools to the recreation paradigm's determinants, through the case study, and not to capture the diverse forms of recreation behaviour in a large zone of observation time. The chapter handled three case studies of AL Sayyida Zayinab garden, Al Hadeeka Al Dawlia and Al Azbakyia garden. Despite the differences, sited in chapter seven, between the three case studies common outcomes have been displayed from the previous findings:

The "edge effect" in the three cases has proven to be of strong influence on participants' outdoors spatial behaviour. Participants are always grouped at edges; trees, walls, benches, etc. Defined 'edges are first occupied then recreation activities that spread towards the middle. This effect was commonly noticed by various social groups and all stages of life-cycle (first stage in SZ, second and third stages in AZ and all stages in HD).

The dominant shape and arrangement of landscape elements in the three gardens were more directed towards encouraging the "without" component. The most seating elements that were made available are straight slab shaped, thus suitable for watching an event dead-up-front, while preventing social exchange between and within groups. This was also accomplished through the strict linear pattern of the seats' arrangement. Moreover,

the distance between linear arranged seats is far enough to constrain the interaction between users.

Settings which include landscape elements that encourage both the "with" and "without" component were more preferred by participants. Moreover, the deficiency in landscape elements of settings which afford and are devoted to specific activities (HD 8, SZ 1 and SZ 5) largely constraint the expected preference of participants.

Despite the anti-social arrangement and shape of sitting tools, the social activities in these settings were always relatively high, which once again provide support for the importance of designing open spaces according to participants' recreation behaviour.

In most settings, the visual function of plants in terms of colour, grouping or arrangement is disregarded. Environmental and structural function were not highly considered, e.g. the relation between shaded trees and seats lacked. Water fountains were common in the case studies, although their visual and psychological effect was absent for they were always off or out of order.

Families and family/friends groups intensely use settings which include action and movement or are detached to entrances. On the other hand, obscure and distant settings were more occupied with couples of friends.

Beside the previous common features, differences in the determinants of the examined sample in the three cases implied different findings. They are summarised as follows:

Differences in type of districts , of which case studies were selected, are found to largely affect the type of participating social groups. Friends and couples were more observed in gardens within commercial districts, while family, friends, and family/friends groups are found to participate more in gardens within residential districts.

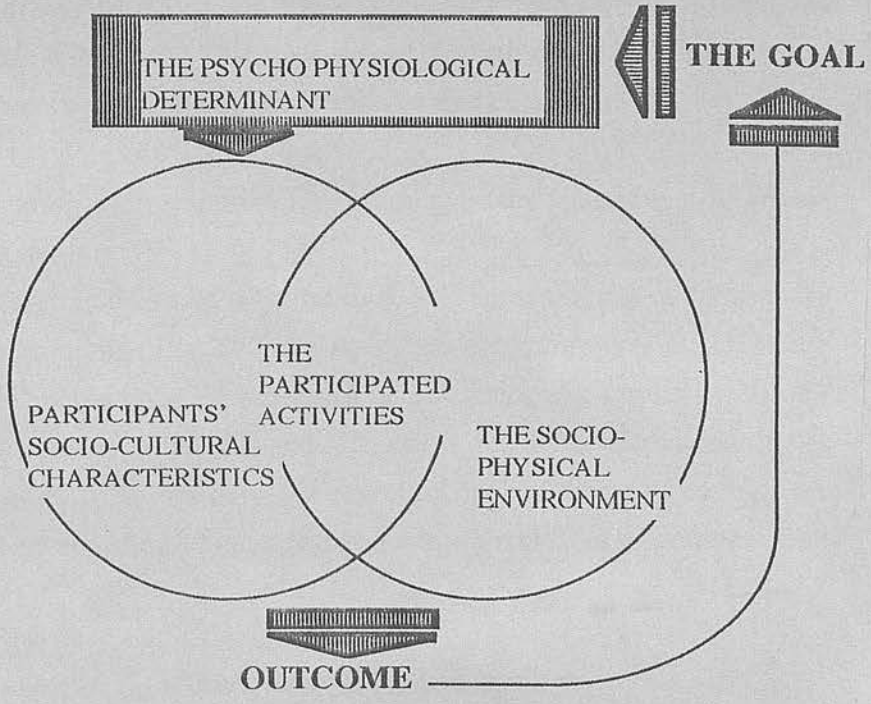
Differences in participants' life-cycle stages resulted a strong impact on the participated activities. The first stage of life cycle preferred to participated in physical activities even in gardens which are more oriented towards cognitive activities (Al Sayyida Zayinab garden). On the other hand, the social activities are found to be most preferred by other stages of life-cycle.

Differences in the shape of settings have strong influence on the participated activities. Both HD and SZ gardens embody obscure settings which were used for job's related activities to take place in these settings. This appears to have lead to hindering their suitable spatial behaviour. AZ garden is the only one that do not include such settings,

thus the job's related activities were suitably more directed towards the maintenance circuit.

Unity in the design of man-made landscape elements in terms of material was only identified in SZ garden, although reconsideration of the height of lighting objects with relation to participants' behaviour should be regarded.

CHAPTER NINE:
9. QUESTIONNAIRE AND ANALYSIS OF FINDINGS



THE RECREATION PARADIGM

CHAPTER NINE

9. QUESTIONNAIRE'S ANALYSIS AND FINDINGS

The purpose of the questionnaire is to deduce the four determinants of the recreation paradigm for a selected sample[1] of participants in outdoor recreation spaces in Cairo through collecting the answers from 207 participant. The findings will be described through the followings:

9.1. The Socio-Cultural Characteristics of Respondents.

9.2. The Characteristics of Participants and Activities by Communities.

9.3 Activities, Motivation of Participation and Maintenance of Case Study.

9.4 The Psycho-physiological dimension of outdoor recreation.

9.5 Conclusion.

9.1. The Socio-Cultural Characteristics of Respondents:

As mentioned earlier in chapter seven, respondents were selected, as much as possible, from the lower and middle sector of Cairenes. In trying to focus on such sample, the following factors have been revealed from the questionnaire:

9.1.1 All respondents are Egyptians with the exception of two out of the 207. In comparing their length of stay in Cairo and their age, it has been concluded that the majority of respondents are considered Cairenes, either by birth or by length of stay in Cairo. Hence the respondents represent a good sample for study.

9.1.2 Moreover , in revealing each respondent's community, the followings have been deduced from the results, [see chart (9.1)]

2% live out of Cairo, 1% are residence of community I, 9% are residence of community II, 4% are residence of community III, 22% are residence of community IV, 30% are residence of community V, while only 1% represent the residence of community VI, 4% are residence of each of the communities VII and VIII, 19% residence of community X, 2% are residence of community XI and only 1% represent the residence of each of the communities XII and XIII. Accordingly, most respondents are residents of communities; II, IV, V and X.

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[1] It is to be selected with reference to the socio-cultural characteristics of respondents.

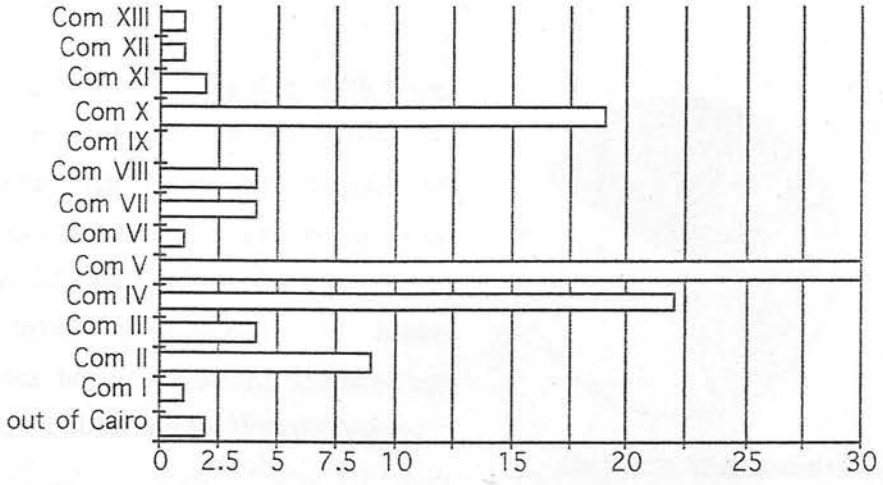


Chart (9.1), number of respondents within Cairo's communities.

9.1.3 In deciding how far is the nearest open space to their residence, nearly half of the respondents answered that it is more than 1 km., followed by 16% answered that it is less than 100 metre, 12% answered that open spaces are from 300 to 500 metre away from their residents, 11% answered that it is far by about from 100 to 300 metre and finally 10% the nearest open spaces are from 1/2 to 1 km of their residence.

In deducing the frequency of visits to this open space within the previous two weeks, nearly half the respondents have not been there at all, followed by 26% have been there only once in the last two weeks, 17% answered that they visited the site more than three times in the same period, and finally only 7% answered that they have been there twice and 7% were there three times in the previous two weeks. In visiting other recreational open spaces, within the same period, most of the respondents went out once (35%) or twice (30%) within the last two weeks, followed by none (16%) then three times (11%) and finally four times (8%). This indicates to the insufficiency of the quality of open spaces within their communities, as respondents seem to prefer other open spaces than the ones within there communities.

9.1.3 Nearly half the total of respondents rent their residents and 47% of them own it while 3% neither own nor rent but got special conditions as part of their job, or as student accommodation. The rest own their residences.

9.1.4 In analysing participants' personal details, it has been found that 52% are males while 48% are females. In order to classify respondents according to their life-cycle stages,[1] it has been revealed that 11% are children less than 13 years old, 21% are teenagers aged from 13 to 20, 26% of the respondents are considered in the adulthood

[1] Life-Cycle stages are classified according to the groups mentioned in chapter three (The Socio-Cultural Characteristics of Participants)

phase from 21 to 35 years old, 37% from 36 to 55 years old, 5% are more than 55 years old see chart (9.2). The majority of respondents falling in the group which is more than 20 years old are married. Only 4% are divorced or widowed. Most respondents, hence, are adults followed by teenagers, children and finally old people.

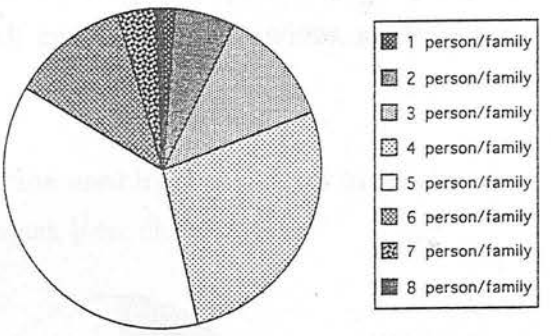


Chart (9.2), Distribution of respondents' age.

9.1.5 The average number of members in the respondents family was as follows:
1.5% is 1 person/family, 6% is 2 persons/family, 12% is 3 person/family, 27% is 4 person/family, 37% is 5 person/family, 12% is 6 person/family, 4% is 7 person/family, 0.5% is 8 person/family (represented by one respondent from the 207). Hence the average of the family is 5 person/family, followed by 4 person/family, [chart (9.3)].

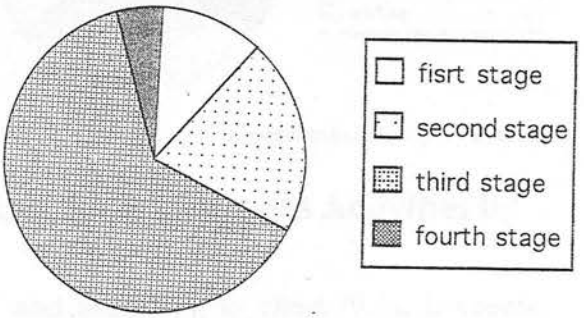


Chart (9.3) number of person/family.

9.1.6 In deducing the respondents education level and occupation, and starting by education, the followings have been revealed, [see chart (9.4)]:
1% cannot read or write, 5% can only read, 13% hold a primary certificate, 14% hold an intermediate certificate, 18 hold a secondary certificate, 43% hold a higher certificate, and 6% higher than college studies.

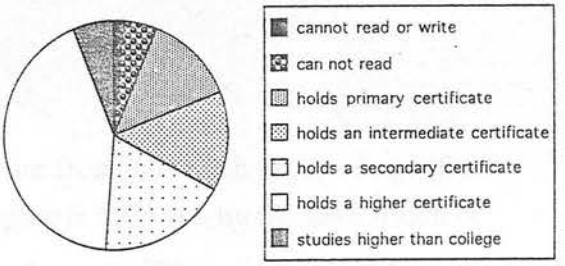


Chart (9.4), the education level of the respondents.

Consequently, most respondents hold a high education certificate from either college or an institute. In dealing with the occupation of respondents the following were revealed, [see chart (9.5)]:

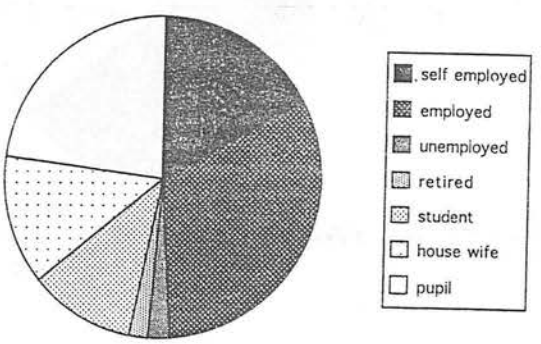


Chart (9.5), occupation of respondents

17% were self employed, 32% were employed, 2% were unemployed, 2% were retired, 11% were students, 13% were house wives and 23% were pupils. Hence the majority of respondents are employed followed by pupils, self employed, house wives, students and the least are retired and unemployed (2% each).

9.1.7 Finally in deducing the type of transportation used by respondents to reach open spaces for recreation the followings findings emerged, [(see chart (9.6)]:

37% used private cars, 13% came with friends, 15% came by a taxi, 17% used public transportation and 18% walked. Accordingly, most of the respondents (one-third of total), go there by private cars, followed by walking, public transportation, taxi and with friends.

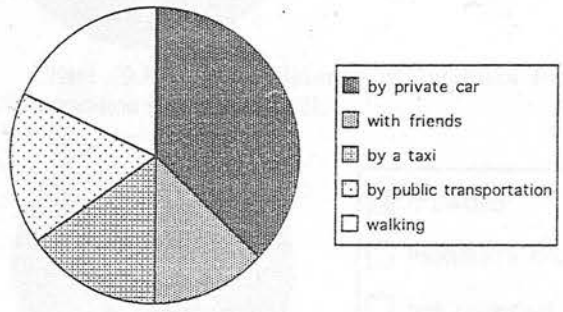


Chart (9.6) type of transportation to open spaces for recreation.

9.2 Characteristics of Respondents and the Participated Activities by Communities:

In trying to classify the communities, and according to chart (9.1), it seems appropriate to deal with the four communities represented by (II, IV, V and X). These communities were selected as they represent a good percentage for the whole total of results. Also it happens that these communities are classified according to Abu-Loghud as low and lower-middle class, except for community V which is classified as middle class in addition to lower middle class. The evaluation of these communities through activities and services lead to the following:

9.2.1 Community II:

9.2.1.1 Most of the respondents of community II are from the fourth group of age (from 36 to 55 years old) represented by 59%, this category is followed by the third group of age (from 21 to 35 years old), representing 29% of the answers. The rest of the respondents are teenagers (from 13 to 20 years old) represented by 12%. Answering the question if they think there is a lack of social contacts among the residents of their neighbourhood, 65% disagree, 12% are not sure and 23% agree, [see chart (9.7)].

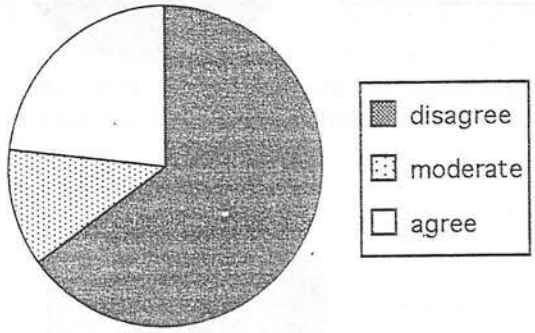


Chart (9.7), opinions about the lack of social contact in community II.

9.2.1.2 Opinions were sought on the community's play and recreation open spaces (such as children play areas) in terms of crowding, noise, safety and distance. The following results were obtained:

a) Facilities: A large majority (70%) replied that the facilities are not sufficient, while 6% answered that it is moderately sufficient and 24% thought that the facilities within community II are sufficient, [see chart (9.8)].

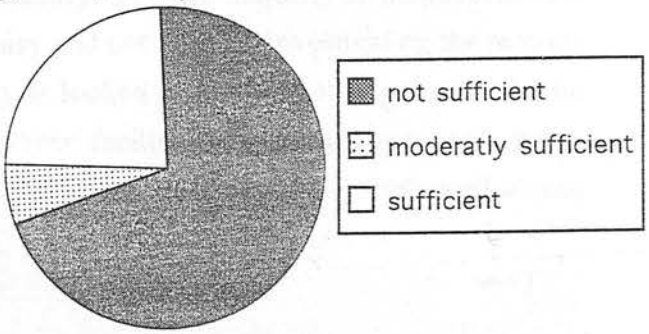


Chart (9.8), the sufficiency of facilities for recreation in community II.

b) Crowding: Most respondents (88%) replied that recreation areas in community II are crowded, while 12% thought it is moderate and not crowded and no one agreed that they are not crowded, [see chart (9.9)].

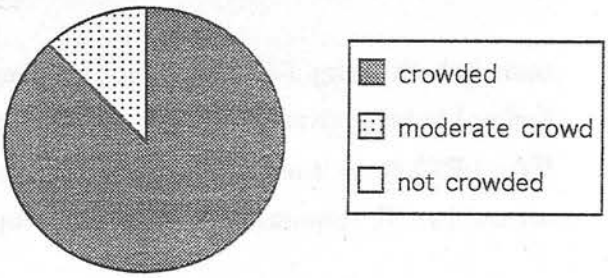


Chart (9.9), the facilities for recreation in community II in terms of crowd.

c) Noise: A large majority represented by 88% agreed that the recreation areas in community II are noisy, only 12% thought it is temperate and no one thought that they are not noisy, [see chart (9.10)]

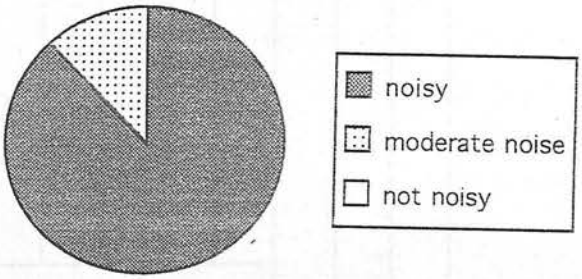


Chart (9.10), the facilities for recreation in community II in terms of noise.

d) Safety: 65% of the respondents replied that recreation areas are not safe in community II, while 29% thought it is just safe and only 6% believed that they are safe, [see chart (9.11)].

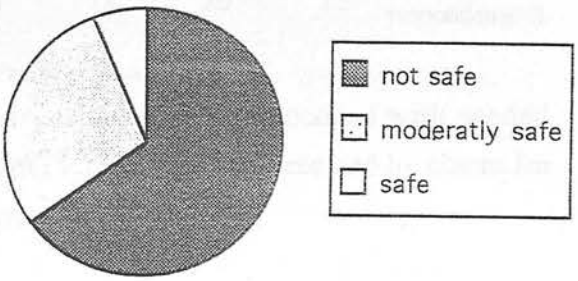


Chart (9.11), the facilities for recreation in community II in terms of safety.

e) Distance: Nearly half the respondents (53%) answered that recreation areas are far from their residence in community II, while 41% thought the distance is fairly good and only 6% replied that they are near, [see chart (9.12)]

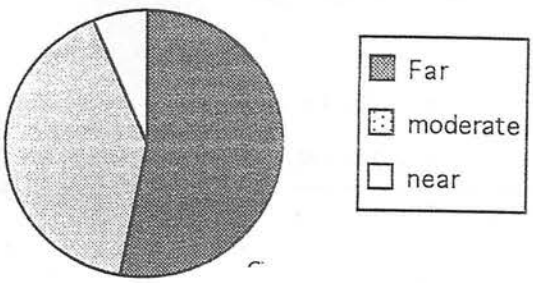


Chart (9.12), the facilities for recreation in community II in terms of distance.

The analysis of the previous findings shows that the open spaces within community II are not sufficient in terms of its environmental quality. A large majority of the respondents thought that the open spaces are crowded, noisy and not safe. In investigating the reasons of such results, it has been found that safety is looked at in terms of objects within the site, as material of landscape elements. Moreover, facilities were meant by toilets, shops, playing equipment, parking lots, and barbecue areas, all were mostly evaluated as not sufficient.

9.2.1.3 Within community II respondents replied that the most needed facilities in their neighbourhood were as follows:
The majority asked for new open spaces designed for families (27%), green shaded areas (23%) and children playgrounds (22%). On the other hand, the minority wanted football fields (11%), parking areas (6%), public toilets (4%) and pedestrians' routs (2%). 5% reported more facilities than the stated in the questionnaire for community II, as libraries [see chart (9.9)]

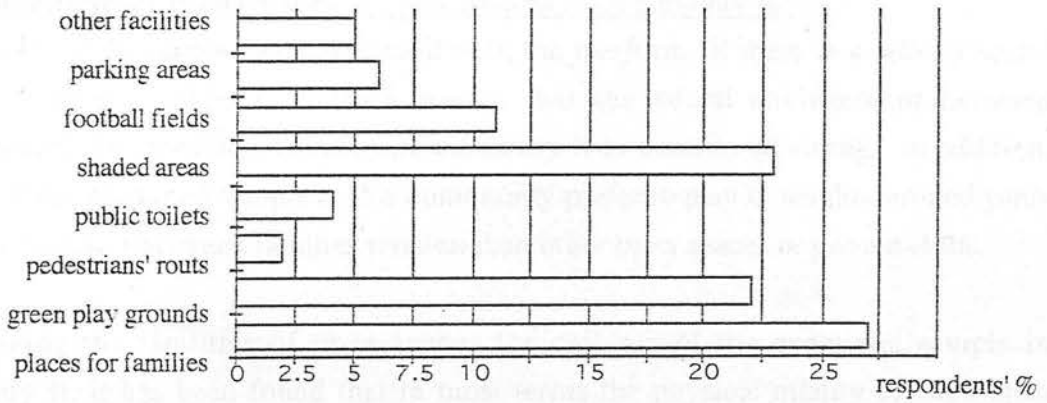


Chart (9.13), the most needed facilities in community II.

Clearly the results show that there are three issues not closely associated with needed facilities. These issues are more clear in the chart (9.13) and are represented by places for families, green shaded areas and children playgrounds.

9.2.1.4 In response to a question about the preferred open space for the residence of this community's children, it has been found that: 65% prefer neighbourhood yards, 6% prefer to play in street fronts and 29% prefer private clubs, [see chart (9.14)].

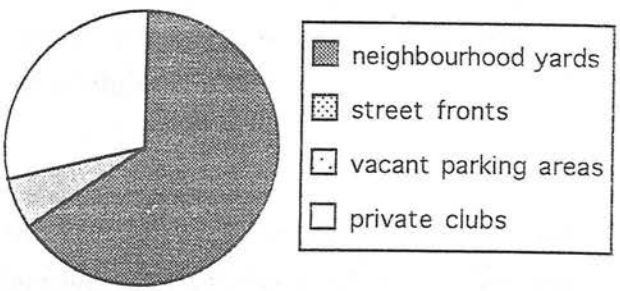


Chart (9.14), the preferred open spaces for recreation in community II

9.2.1.5 Finally in reply to a question about the major participated activities by respondents within community II, the followings have been deduced:

31% prefer to sit and talk, 12% prefer watching views, 14% accompany the children to play, 6% play football, 29% prefer to picnic, 2% practice some exercise, while 6% participate in other activities, [see chart (915)].

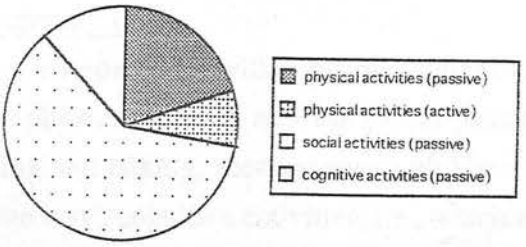


Chart (9.15), the majority of participated activities in community II.

Relating the activities to their categories, it has been revealed that the social activities represent 60%, the physical activities embody 20% for passive and 8% for active while the cognitive represent 12%.

The followings were concluded from the outcomes of the questionnaire analysis for community II according to the examined sample:

The Socio-Physical Characteristics of Open Spaces in Community II :

More than half the respondents disagreed with the question "if there is a lack of social contacts among neighbours", which means that the social environment between neighbours of the examined sample in community II is considered strong. In addition, children of the examined sample in this community prefer to play in neighbourhood yards reinforcing contact between families relation than other open spaces or private clubs.

In evaluating the facilities of open spaces for children of the examined sample in community II, it has been found that in most terms the physical quality of such open spaces is not sufficient. More than 65% thought that they were not safe, the majority (88%) thought they were crowded and most of the respondents (70%) thought that the facilities were not sufficient. in addition, most of the answers (88%) indicated that open spaces within the community are noisy while no one thought they are not noisy. Around half of the respondents (53%) thought that the open spaces in community II are far from their residence, 41% thought the distance is moderate and only 6% agreed that they are near. In general, according to the examined sample's opinion the sum of such findings indicates that the characteristics of the facilities of children's play areas in community II are disappointing.

In answer to the question on the most needed facilities in the community (in terms of both the social and physical environment) it has been found that the social factors (families and children) ranked high (both 49%). The climatic factor as green shaded areas came next (23%), while the football field facilities scored 11%. The rest of the facilities score around 6% or less. This supports the answers of the Hara question, which indicates to the

importance of design for the social environment, while taking the physical (climate) in consideration.

The Participated Recreational Activities in Community II:

Finally in analysing the pattern and form of participated activities by respondents in community II, it has been found that both the physical passive and the social passive activities are most frequently encountered (sitting and talking, accompanying children to play, and picnic), followed by the individual, 'one way', cognitive activities, i.e., watching views. Grouped active patterns of activities such as playing football only scored 6% which was not expected, especially in a low or lower-middle class community as community II. On the other hand in relating this to age of participants, it has been noticed that within community II, the majority of respondents form the third stage of life-cycle. Studying the effect of life-cycle stages on participants choice of activities[1] explains such findings. Finally practising some exercises scored just 2% which is also due to the previous reason. These findings support the importance of both the social activities and the physical passive pattern without neglecting both the cognitive and active physical.

Lots of people say the open space within their community is noisy and unsafe, yet lots participate in social activities as talking. Noise within their perception is a result of their form of participation, in family and friend groups and not as individuals. Conversation, hence, takes place between and within groups. On the other hand the non-safety is a result of designed problems as choosing materials and landscape elements. Participants use such open spaces driven by other reasons and not for safety, e.g. these are the only available open space that exists near the residence, the existence of playing equipment for children which suits participants' type of groups, .. etc.

9.2.2 Community IV:

9.2.2.1 Most respondents of community IV belong to the third group of age (78%). Teenagers aged from 13 to 20 years old represent 18% of the respondents, while children aged less than 13 years old represent only 4%.

Answering the question if they think there is a lack of social contacts among the residents of community IV, 52% disagreed about such concept, 22% were not sure and 26% agreed that there is lack of social contact between residence of their neighbourhood, [see chart (9.16)].

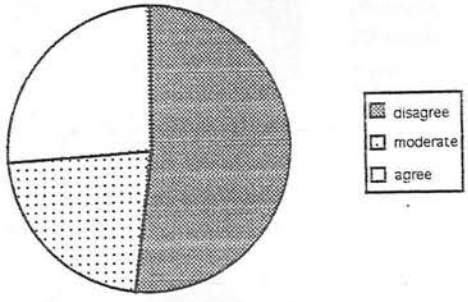


Chart (9.16), opinions of the lack of social contact in community .IV.

[1] See chapters three and six for the relation between life-cycle stages and the behavioural activities participated.

9.2.2.2 In giving their opinion on the community's play and recreation open spaces (such as children play areas) in terms of crowd, noise, safety and distance the following answers were attained:

a) Facilities: In terms of facilities responses were nearly equal in the three judgements. 37% of the responses replied that the facilities are not sufficient, while 30% thought they are moderate and 33% thought that the facilities within community IV are sufficient, [see chart (9.17]

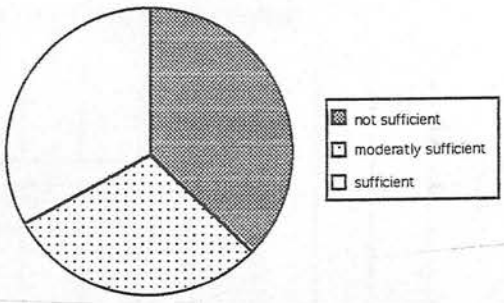


Chart (9.17), the sufficiency of facilities of recreation in community IV.

b) Crowding: A large majority 63% replied that recreation areas in community IV are crowded and 32% answered that the crowd is accepted. Only 5% thought that open spaces within the community are not crowded, [see chart (9.18)].

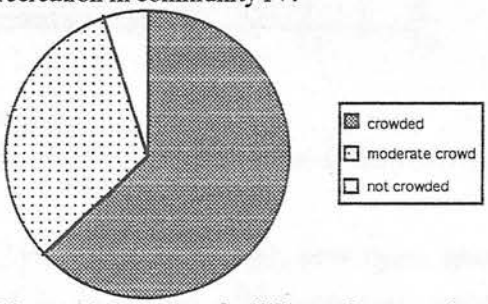


Chart (9.18), the facilities of recreation in community IV in terms of crowd.

c) Noise: The same as their thoughts of crowding in such open spaces. 63% thought that the recreation areas in community IV are noisy, 32% thought they are moderate in terms of noise and only 5% thought that they are not noisy, [see chart (9.19)]

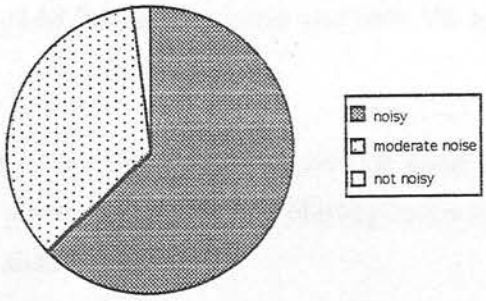


Chart (9.19), the facilities of recreation in community IV in terms of noise.

d) Safety: In terms of safety, the answers were nearly the same where 30% replied that recreation areas are not safe in community IV, 32% thought it is quite safe and 38% thought that they are moderately safe, [see chart (9.20)].

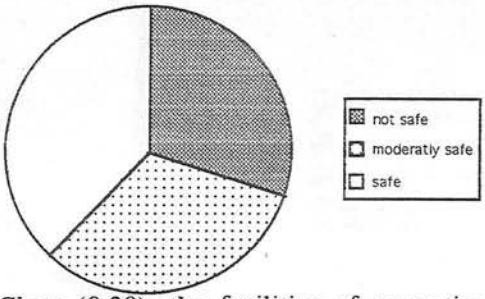


Chart (9.20), the facilities of recreation in community IV in terms of safety.

e) Distance: 30% answered that recreation areas are far from their residence in community IV, while 29% thought the distance is moderate and 41% replied that they are near, [see chart (9.21)]

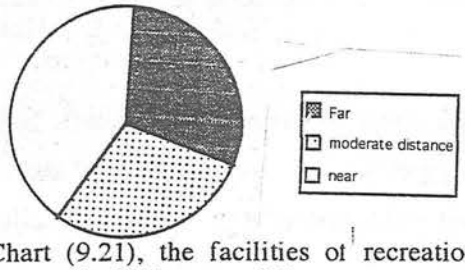


Chart (9.21), the facilities of recreation in community IV in terms of distance.

In summary, respondents in community IV thought that the facilities of the recreation areas within their community is not satisfying, specially in terms of noise and sufficiency. The opinion of safety and crowd within these areas were not remarkable for the differences of answers, because the three evaluations were nearly equal.

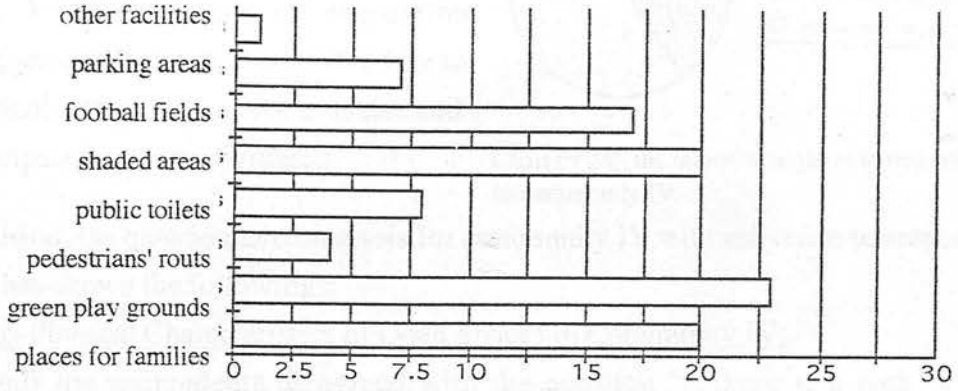


Chart (9.22), the most needed facilities in community IV

9.2.2.3 Residents of the examined sample in community IV chose the following most needed facilities in their neighbourhood:

The majority asked for children playgrounds (23% of the answers), new open spaces designed for families (20%) and green shaded areas (20%). The previous needed facilities were followed by the need of football fields (17%), public toilets (8%). Moreover, 4% asked for pedestrians routs, 7% asked for parking areas and only 1% asked for other facilities, [see chart, (9.22].

Clearly the results of chart (9.22) show that there are three main issues that need to be taken into account. These issues are designing places equipped with playing instruments for children, open spaces for families and green shaded places.

9.2.1.4 Answering the question about the preferred open space for the respondents of this community's children, it has been found that: The majority of the children prefer neighbourhood yards (43%) and private clubs (41%), followed by 13% prefer to play in street fronts and only 3% their children prefer to play in vacant parking areas, [see chart (9.23)].

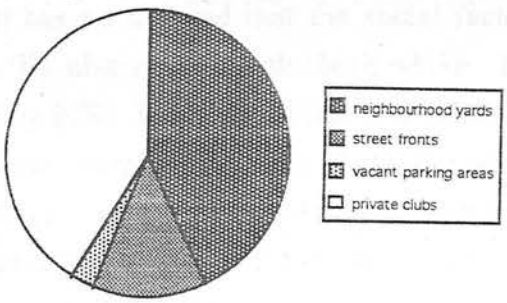


Chart (9.23), the preferred open spaces for children in community IV.

9.2.1.5 Finally in response to the question asked about the majority of participated activities by respondents within this community, it has been found that the majority prefer to participate in passive activities, e.g. sit and talk (26%), 18% prefer watching views, 21% prefer to picnic, [see chart (9.24)].

Accordingly, the social represent 47%, the passive physical 20% the cognitive 18% and the active physical 15%. Followed by activities related to families groups, e.g. 13% go out to accompany the children while playing. Finally the active recreation activities scored the least where, 10% like to play football, 5% practice some exercise and 7% participate in other activities.

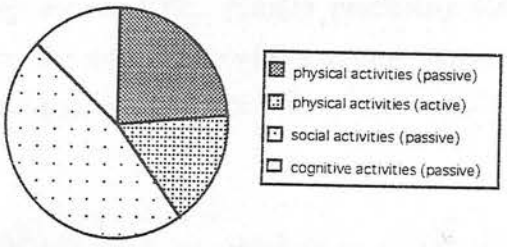


Chart (9.24), the majority of participated activities in community IV.

In conclusion, the questionnaire analysis for community IV with reference to respondents' opinion, has shown the followings:

The Socio-Physical Characteristics of Open Spaces in Community IV:

Nearly half the respondents disagreed with the question "if there is a lack of social contacts among neighbours", which means that the social environment between neighbours in community IV is moderate. Respondents' children of this community prefer either to play in neighbourhood yards or private clubs each scored around 42% and least of all to play in vacant places. In evaluating the facilities of open spaces for children in community IV, it has been found that in most terms the physical quality of such open spaces is better than community II. The worse facilities recorded according to the respondents were in terms of crowding and noise (for each facility 63% agreed that such qualities are not sufficient and only 5% disagreed, while the rest were moderate). The differences in responses between residents' opinion in terms of the rest of the facilities were moderate. According to the responses, the sum of the previous findings indicates that what needs to be enhanced most in open spaces of community II is the quality of the facilities in terms of crowd and noise, while the rest are considered moderate.

In their reply to the question of the most needed facilities in the community (in terms of both the social and physical environment), it has been found that the social factors (families and mostly children) in community IV also ranked high (both 43%). The climatic factor as green shaded areas came next by 20%. The needs of facilities related to active physical activities as football field facilities scored 17%. Each of the rest of the facilities scored around 8% or less. Such findings support the importance of designing open spaces for the social environment (and specially the children) bearing in mind the physical (the climate in particular).

The Participated Recreational Activities in Community IV:

Finally by analysing the pattern and form of participated activities by respondents in community IV, it has been found that although this community differs in life style than community II, they both share much of the categories selected for the participated activities. The social and passive physical activities are most frequently encountered (sitting and talking, accompanying children to play, and picnic), followed by the

individual 'one way' passive activities, i.e., watching views. Grouped active pattern of activities as playing football in this community scored 10%. Finally practising some exercise, which scored just 2%. This indicates to the importance of the passive activities specially the grouped while supplying the setting or open space with picnic facilities should be taken into consideration.

9.2.3 Community V:

9.2.1.1 73% of the respondents of community V belong to the third stage of life-cycle (from 21 to 55 years old). 18% belongs to the second stage (from 13 to 20 years old) and the rest are the first stage (children less than 13 years old). Answering the question if the residence of this community think there is a lack of social contacts among their neighbourhood, 53% disagreed, 28% were not sure and 19% agreed, [see chart (9.25)].

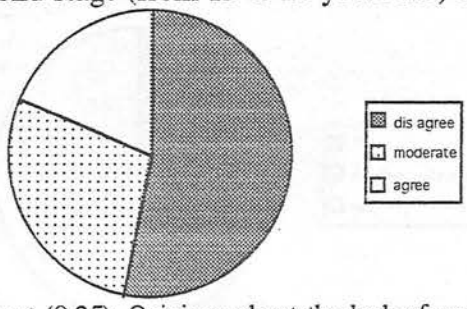


Chart (9.25), Opinions about the lack of social contact in community V.

9.2.3.2 Opinions were sought on the community's play and recreation open spaces (such as children play areas) in terms of crowding, noise, safety and distance the following answers were collected:

a) Facilities: 44% answered that the facilities are not sufficient, while 24% replied that the facilities are accepted and 32% agreed that the facilities within community V are sufficient, [see chart (9.26]

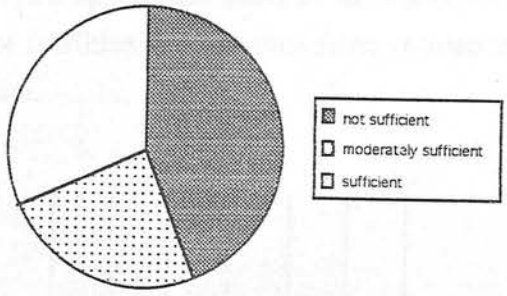


Chart (9.26), the sufficiency of facilities for recreation in community V.

b) Crowding: A majority of 76% replied that recreation areas in community V are crowded, 24% thought that it is moderate crowd and no one agreed that they are not crowded, [see chart (9.27)].

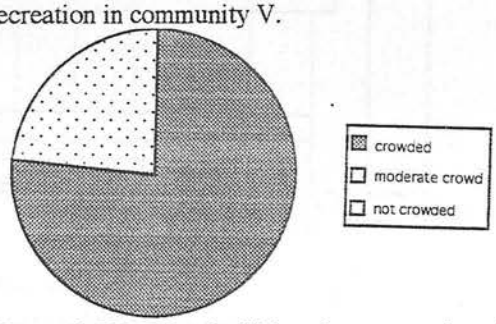


Chart (9.27), the facilities for recreation in community V in terms of crowd.

c) Noise: As in terms of crowding, a large percentage of 79% agreed that the recreation areas in community V are noisy, 21% replied that the noise is moderate and no one agreed that they are not noisy, [see chart (9.28)]

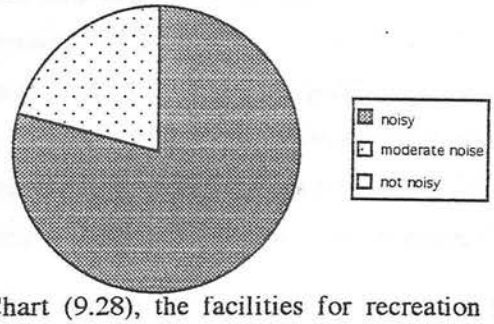


Chart (9.28), the facilities for recreation in community V in terms of noise.

d) Safety: 44% replied that recreation areas are not safe in community V, while 26% replied that safety in these open spaces is moderate and 30% agreed that they are safe, [see chart (9.29)].

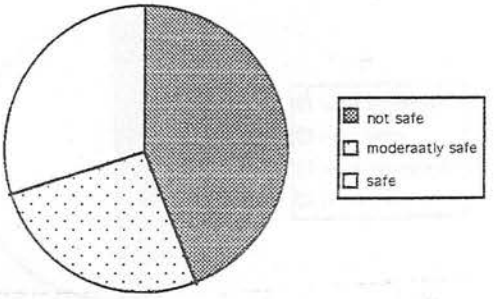


Chart (9.29), the facilities for recreation in community V in terms of safety.

e) Distance: 32% answered that recreation areas are far from their residence in community V, while 40% thought that the distance is accepted and 38% replied that they are near, [see chart (9.30)]

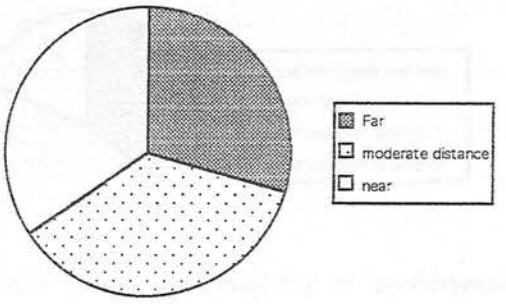


Chart (9.30), the facilities for recreation in community V in terms of distance.

According to the responses and in terms of available facilities of open spaces within community V, it could be concluded that these open spaces are most of all noisy and crowded. On the other hand, safety, sufficiency of facilities and distance from residence to such open spaces could be considered as moderate.

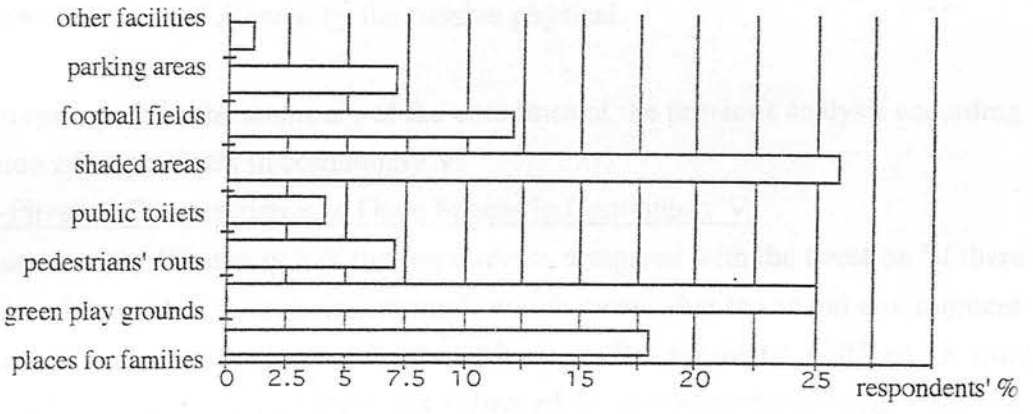


Chart (9.31), the most needed facilities in community V.

9.2.3.3 Residents of community V asked for the following facilities:

The majority asked for green shaded areas (25%), children playgrounds (25%), and new open spaces designed for families (18%). Moreover, 12% reported football fields, 7% asked for pedestrians routs, 7% required parking areas, 4% asked for public toilets and only 1% reported other facilities, [see chart (9.31)]. Clearly the results show that there are three main issues not closely associated with needed facilities. As shown in chart (9.31), these issues are related to the physical environment in terms of shaded areas and families groups as children and spaces for families.

9.2.3.4 In response to a question asked of the preferred open space for the residence of this community's children, it has been revealed that: 34% prefer neighbourhood yards, 15% prefer to play in street fronts, and 50% prefer private clubs, [see chart (9.32)].

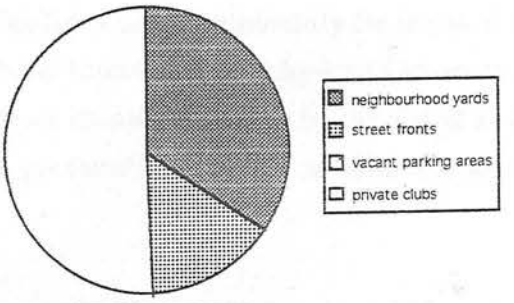


Chart (9.32), types of preferred open space for children in community V.

Accordingly most of the residents prefer to recreate in private clubs followed by neighbourhood yards. The least places to participate in outdoor activities are street fronts.

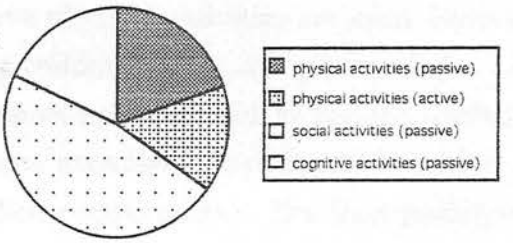


Chart (9.33), the majority of participated activities in community V.

9.2.3.5 Opinions were given on the major participated activities by respondents within this community they are as follows, [see chart (9.33)]: 24% prefer to sit and talk, 23% prefer to picnic, 19% accompany the children to play, 13% prefer watching views, 10% play football, 6% practice some exercise, while only 5% prefer to participate in other activities. Accordingly, the social activities are 47%, the passive physical 24%, the active physical 16% and the cognitive represent 13%. This means that the social activities are the top high followed by the passive physical.

The followings represent the summary of the outcomes of the previous analysis according to the opinion of respondents in community V:

The Socio-Physical Characteristics of Open Spaces in Community V:

Similar to community IV, nearly half the respondents disagreed with the question "if there is a lack of social contacts among neighbours", which means that the social environment between neighbours in community V is moderate. Respondents' children in this community prefer to play in private clubs followed by neighbourhood yards. Streets fronts are the least place they enjoy playing in.

On the other hand, in evaluating the facilities of open spaces for respondents' children in community V, it has been found that in most terms the physical quality of such open spaces is not sufficient. This was more noticed in terms of crowding and noise, where the majority (76%) of the residence thought that the open spaces are crowded, 79% thought they are noisy and no one agreed that they are not crowded or noisy. On the other hand, in terms of safety and distance, 44% agreed that they are safe, 32% agreed that they are far while in each 35% disagreed. As in the previous community, it seems that open spaces in community V needs attention in terms of crowd and noise.

In answer to the question on the most needed facilities in the community (in terms of both the social and physical environment), it has been found that the physical factors in this community are most needed specially in terms of climate followed by the social factors (families and mostly children). Following the previous two factors are both the need of football fields and pedestrian routes.

The Participated Recreational Activities in Community IV:

In analysing the pattern and form of participated activities by respondents in community V, it has been found that the social and passive physical activities are most frequently encountered (sitting and talking, accompanying children to play, and picnic), followed by active physical activities. Grouped active physical activities such as playing football in this community scored 10% and practising some exercises scored just 6% which is the highest level compared to the rest of the studied communities. The least participated activities are the cognitive 'one way' passive activities, i.e., watching views. This indicates to the importance of the passive activities specially the grouped beside supplying the setting or open space with picnic facilities.

9.2.4 COMMUNITY X:

9.2.4.1 Most respondents of community X belong to the first two groups either as children less than 13 years old (30%) or as teenagers from 13 to 20 years old (36%). These are followed by respondents who belong to the third group of age from 21 to 55 years old (28%) while only 6% of the respondents are from the fourth group of age (more than 56 years old). Answering the question if they think there is a lack of social contacts among the residents of their neighbourhood, 36% disagreed, 8% were not sure and 6% agreed, [see chart (9.34)].

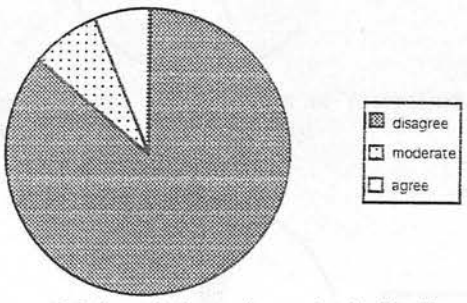


Chart (9.34), opinions about the lack of social contact in community X.

9.2.4.2 The opinions were sought on the community's play and recreation open spaces (such as children play areas) in terms of crowd, noise, safety and distance. The following results were found:

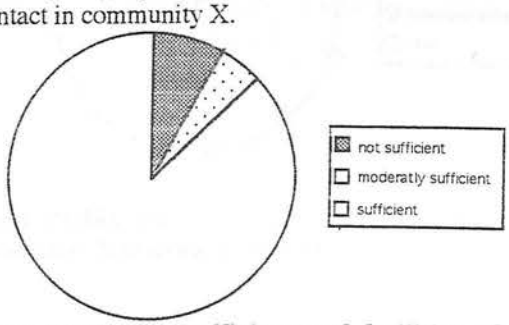


Chart (9.35), the sufficiency of facilities of recreation in community X.

a) Facilities: 8% thought that the facilities are not sufficient, only 5% answered that they are moderate and the majority (87%) replied that the facilities within community X are sufficient, [see chart (9.35)]

b) Crowding: A large percent (79%) replied that recreation areas in community X are crowded, 13% answered that they are moderately crowded and only 8% thought that they are not crowded, [see chart (9.36)].

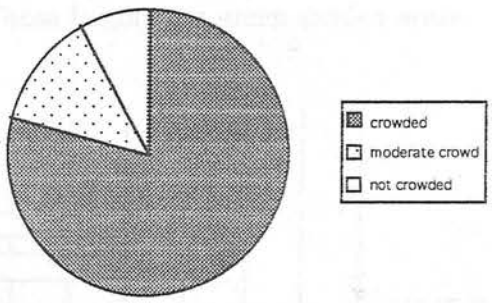


Chart (9.36), the facilities of recreation in community X in terms of crowd.

c) Noise: More than half the respondents (67%) replied that the recreation areas in community X are noisy, 22% answered that they are moderately noisy and 11% thought they are not noisy, [see chart (9.37)]

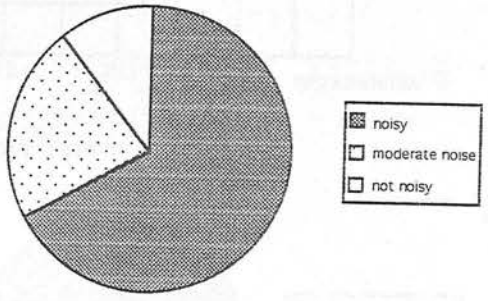


Chart (9.37), the facilities of recreation in community X in terms of noise

d) Safety: On the other hand, in terms of safety only 11% replied that recreation areas are not safe in community X, while 34% answered that these open spaces are moderately safe. Nearly half of the responses (55%) thought that such open areas are safe, [see chart (9.38)].

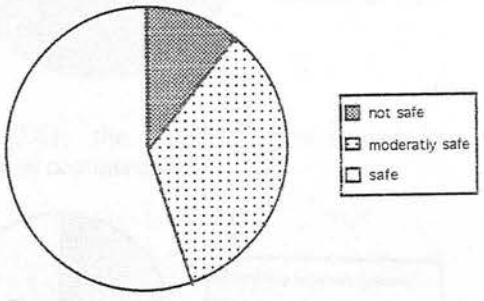


Chart (9.38), the facilities of recreation in community X in terms of safety.

e) Distance: In evaluating the distance of walk from their residence to open spaces in community X, only 6% answered that recreation areas are far from their residence in community X. A very large majority (94%) replied that they are near, [see chart (9.39)]

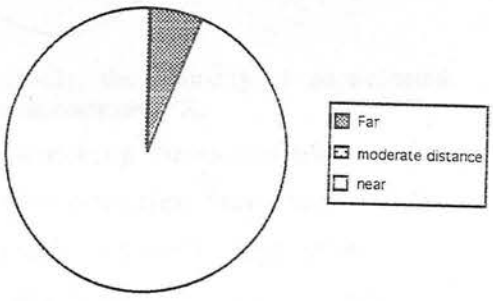


Chart (9.39), the facilities of recreation in community X in terms of distance.

9.2.4.3 Within community X respondents asked for the following facilities:
The majority asked for green shaded areas (25%), football fields (22%) and children playgrounds (21%). An average of 12% reported new open spaces designed for families, and public toilets (10%). Only 3% asked for pedestrians routs, 1% for parking areas and 7% for other facilities, [see chart (9.24)]. Clearly the chart shows that there are three

main issues not associated with needed facilities. These factors are green shaded areas, children playground and football fields.

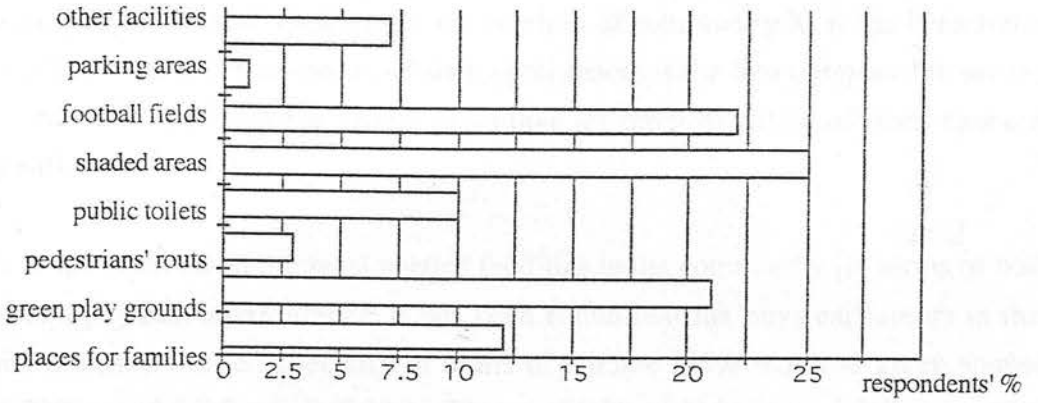


Chart (9.40), the most needed facilities in community X.

9.2.4.4 In response to a question asked of the preferred open space for the residence of this community's children, the followings were found: A large majority of 81% prefer neighbourhood yards and only 19% prefer to play in street fronts, [see chart (9.41)].

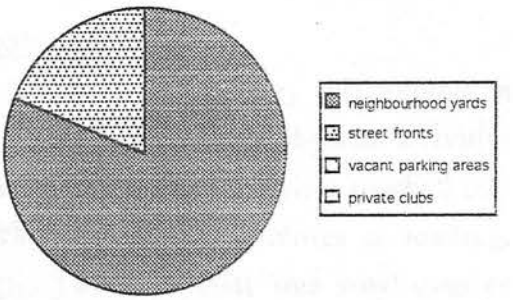


Chart (9.41), the preferred open spaces for children in community X.

9.2.4.5 Finally for the major activities preferred by the respondents of this community the followings have been found: The majority (29%) prefer to play football, 23% prefer to sit and talk and 15% enjoy picnicking.

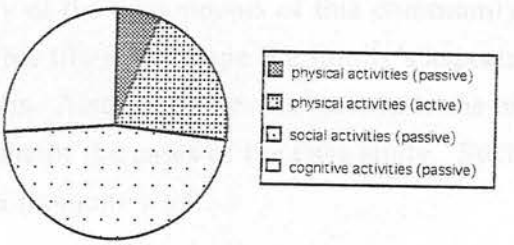


Chart (9.42), the majority of participated activities in community X.

Only 6% accompany the children to play, 5% prefer watching views and 6% practice some exercise, while 16% prefer to participate in other activities, [see chart (9.42)]. Accordingly, both the active physical and social related activities are the highest preferred activities (38%), followed by the cognitive (18%) and finally the passive physical activities (one-way 6%).

In conclusion, the followings represent the outcomes of the questionnaire analysis for community X, according to respondents' opinion:

The Socio-Physical Characteristics of Open Spaces in Community X:

Community X, represents the highest score for disagreeing with the question "if there is a lack of social contacts among neighbours", which means that the social environment

between neighbours in community X is very strong. Most respondents' children in this community prefer to play in neighbourhood yard more than all other types of open spaces. In evaluating the facilities of open spaces for children of community X, it has been found that in most terms the physical quality of such open spaces is the best compared to the rest of the communities. Except for crowd and noise all other qualities of open space is relatively sufficient.

In answer to the question on the most needed facilities in the community (in terms of both the social and physical environment) it has been found that the physical factors in this community are most needed specially in terms of climate (25% required green shaded areas and 22% asked for football fields). This was followed by the social factors (21% for children playgrounds), while the rest of the facilities scored 12% and less.

The Behavioural Participated Activities in Community X:

Finally in analysing the pattern and form of participated activities by respondents in community X, it has been found that both the social passive and active physical activities are most frequently encountered (i.e. sitting, talking and picnic, playing football and doing exercise). Cognitive activities scored 18% (in this case activities as reading, computer games, singing and drama practising). The individual 'one way' passive activities, i.e., watching the children is not high compared to the rest of the studied communities. In relating such community in terms of the age of participants to the type of open space, it has been found that the majority of the respondents of this community are either teenagers or children, accordingly, at this life-cycle stage the family's aspects are not as strong as the physical and friendship ones. Also most answers were in terms of Hadeekat El Hod El Marsoud, which represents one of the cases of the case study. Such finding will help more in the case study than the community itself.

9.3 Activities Participation, with Relation to Motivations and Facilities within the Case Study:

Opinions were sought on the preferred garden between the three suggested case studies. The majority of the respondents (84%) prefer the national garden (Al Hadeeka El Dawlia), 7% prefer Al Sayyida Zayinab (Al Hod Al Marsoud) garden and 9% prefer the Azbakyia garden, [see chart (9.43)].

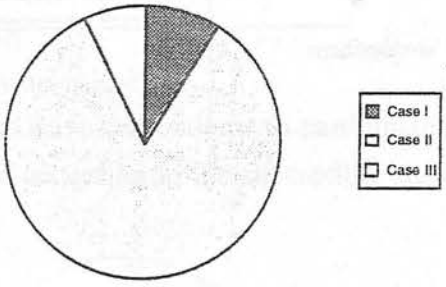


Chart (9.43), the preferred case study by respondents.

The three gardens were studied and analysed through the followings:

9.3.1 Hadeekat Al Azbakyia

9.3.2 Al Hadeeka El Dawlia

9.3.3 Hadeekat Al Hod Al Marsoud

9.3.1 Al Azbakyia:

The majority of respondents who prefer Al Azbakyia garden are adults from both groups. 84% from the respondents are from the third stage of life-cycle preferred the garden. Only 11% are from the fourth stage (more than 55 years old) and 5% represent the second stage (from 13 to 20 years old). No children responded to the questionnaire of this garden, [see chart (9.44)].

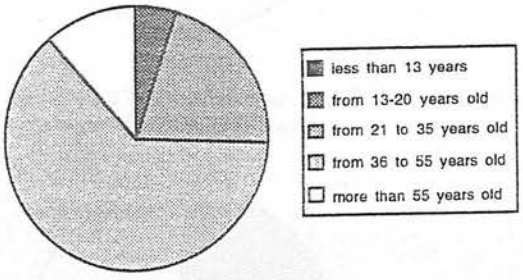


Chart (9.44), respondents' age in case study I.

9.3.1.1 In measuring the frequency for the time of visit to Al Azbakyia garden, the following has been deduced:

The large majority has been there once (32%) or twice (32%) within the previous two weeks. 26% had not visited the garden at all and only 10% had been there three times within the last two weeks, [see chart (9.45)].

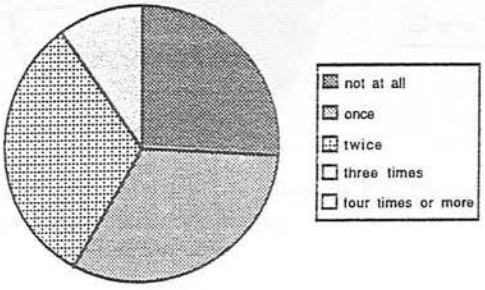


Chart (9.45), frequency of visits within the last two weeks in case study I.

9.3.1.2 The followings are the responses to a question asked for the majority of participated activities in the preferred garden: The large majority (32%) enjoy sitting and talking in the garden, 14% prefer to watch the children and help them to play, 12% prefer to meet friends and families, 11% watch other people, 10% enjoy reading and 6% like to watch the performance. Only 3% prefer to participate in some exercise as walking and playing, while 12% enjoy to do other activities, [see chart (9.46)]. Accordingly, the preferred categories of participated activities are as follows: 44% prefer to participate in social, 20% in passive physical, 15% in active physical and 11 % in cognitive.

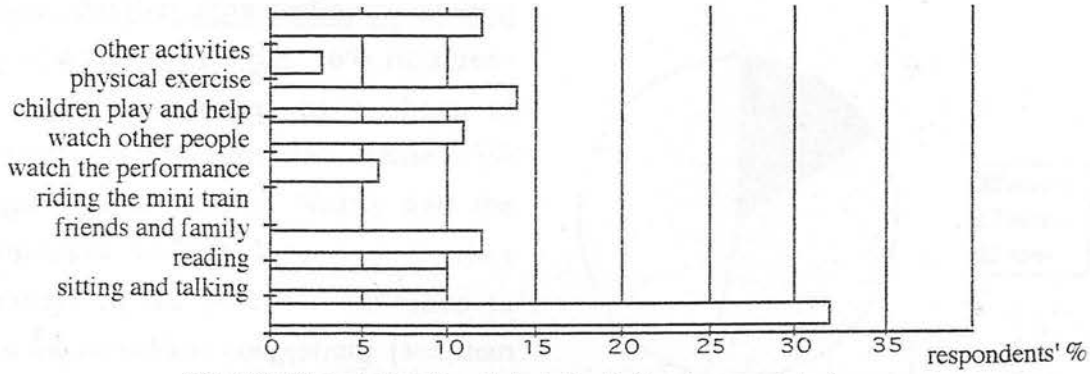


Chart (9.46) majority of participated activities in case study I

9.3.1.3 Opinions were pursued on the motivations that drive respondents to participate in the previous activities. The followings were revealed according to the succeeding stated motivations illustrated in the questionnaire:

a) <u>These activities attribute to the health and well being</u>: 16% disagreed that they contribute in such activities motivated by being healthy and well. Only 5% thought that this motivation is moderate and a large majority (79%) agreed that they are driven by such motivation to participate in the previous activities, [see chart (9.47)].

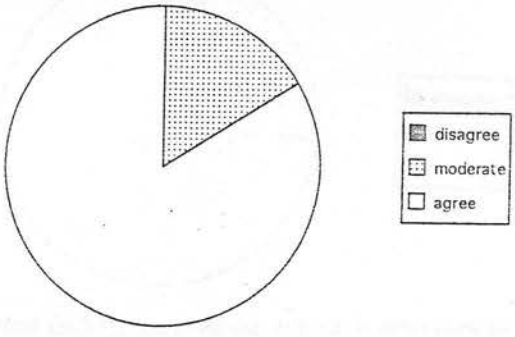


Chart (9.47), motivations for such activities in terms of health and well being.

b)<u>These activities provide joy able physical exercise:</u> The majority of the respondents (68%) disagreed that the physical exercise drive them to participate in the activities. Only 5% thought that the physical motivation is moderate and 27% agreed that they are driven by such motivation, [see chart (9.48)].

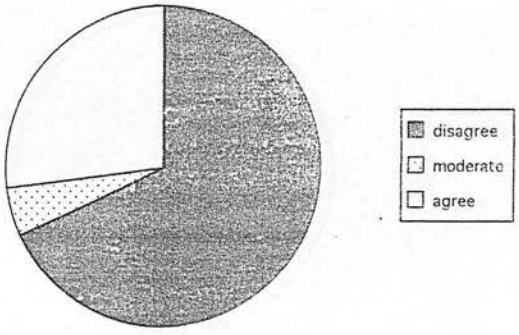


Chart (9.48), motivations for such activities in terms of physical provision.

c) <u>These activities provide relaxation and rest:</u> Only 5% disagreed that they participate in the previous activities for relaxation and rest, 11% replied that this motivation is an average one and a large majority of 84% agreed that rest and relaxation is a motivation for participation, [see chart (9.49)].

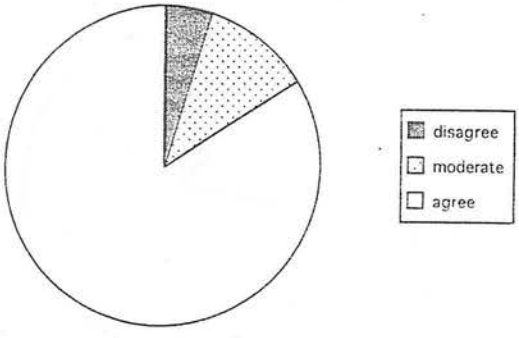


Chart (9.49), motivations for such activities in terms of rest and relaxation.

d) These activities allow getting away from the crowd and congestion: 16% disagreed that such motivation drive them to participate in the activities, while 37% thought it is moderate. Nearly half the respondents (47%) agreed that they participate in the previous activities to escape the crowd and congestion, [see chart (9.50)].

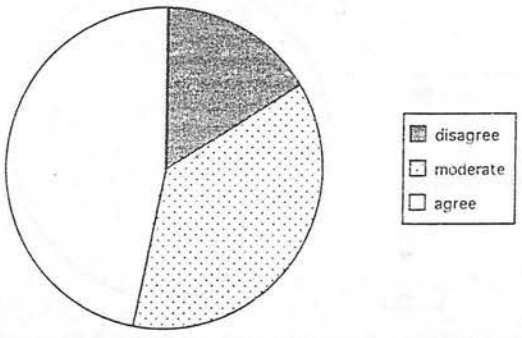


Chart (9.50), motivations for such activities in terms of escape the crowd and congestion.

e) These activities give the opportunity to meet friends: Only 5% disagreed that they participate in the previous activities in order to meet friends. 21% meeting friend is not a strong nor a weak motivation and the large majority of 74% agreed that they participate in such activities motivated by meeting friends, [see chart (9.51)].

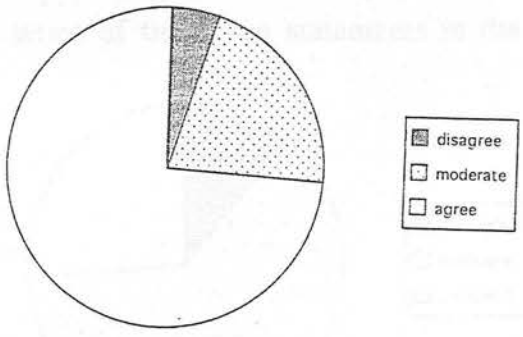


Chart (9.51), motivations for such activities in terms of meeting friends.

f) These activities permit the freedom of the restrictions of jobs and social obligations: 21% disagreed that they participate in such activities to be free from the restrictions of jobs and social obligations. Only 15% replied that this motivation is a moderate one and more than half the responses (59%) agreed that this motivation is a strong one that drive them to participate in the previous activities, [see chart (9.52)].

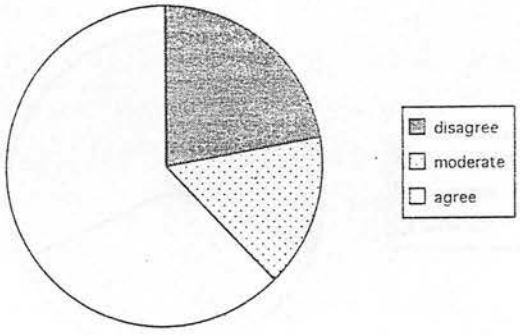


Chart (9.52), motivations for such activities in terms of freedom from the restrictions of job.

g) These activities help to make use of the public lands: 11% disagreed that they engage in the previous activities driven by such motivation while 16% thought it is not an average motivation. A majority of 73% agreed that they enjoy these activities to make use of the public land, [see chart (9.53)].

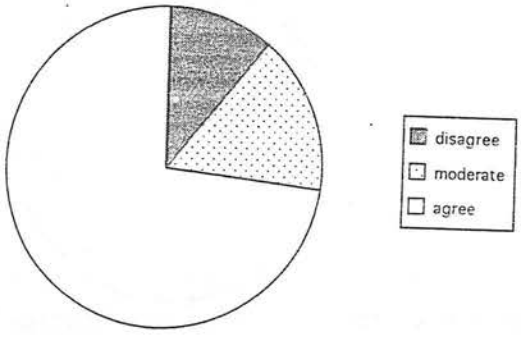


Chart (9.53), motivations for such activities in terms of make use of public land.

h) <u>These activities help increasing the time spend with the family</u>: No one agreed that such motivation drive them to participate in the activities. Only 21% thought that it is a moderate motivation and a large majority of 79% agreed that they enjoy the previous activities determined by spending more time with the family, [see chart (9.54)].

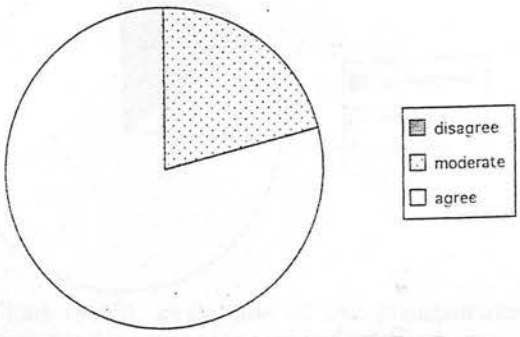


Chart (9.54), motivations for such activities in terms of maximising the leisure time spent with family.

9.3.1.4 In order to evaluate the maintenance circuit with respond to the participants opinion the followings have been revealed in terms of the given statements in the questionnaire:

a) <u>The adequacy of facilities in Al Azbakyia garden</u>: Only 11% replied that the adequacy of the facilities are not sufficient, while a large percentage of 63% thought that the adequacy of the facilities is moderate. 26% agreed that the facilities in al Azbakyia garden are sufficient, [see chart (9.55)].

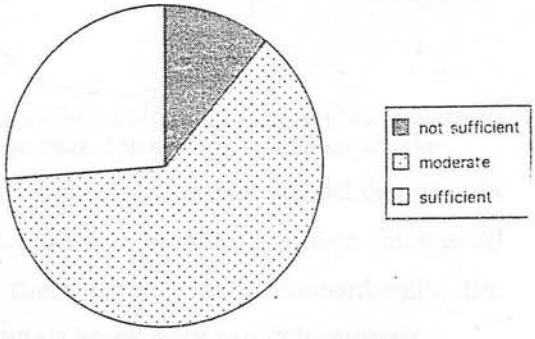


Chart (9.55), evaluation of the maintenance circuit in case study I in terms of facilities.

b) <u>The help and courteous of the staff</u>: The answers to such questions were moderate and nearly equal in the three states. 31% thought that the help and courteous of the stall is not sufficient, 37% thought they are quite helpful and 32% thought the staff in al Azbakyia garden is very helpful, [see chart (9.56)].

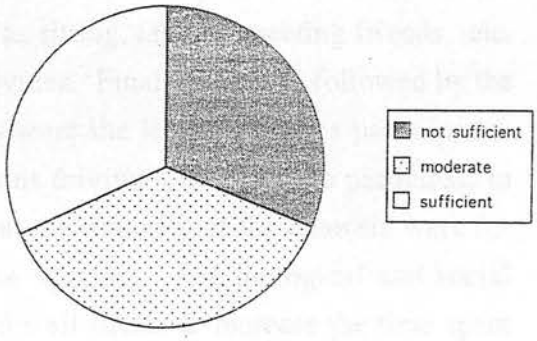


Chart (9.56), evaluation of the maintenance circuit in case study I in terms of staff help.

c) <u>The appearance of the garden in general:</u> Only 5% replied that Al Azbakyia garden has not got a good appearance and 11% thought the appearance is accepted. A large majority of 84% agreed that the general appearance of al Azbakyia garden is sufficient, [see chart (9.57)].

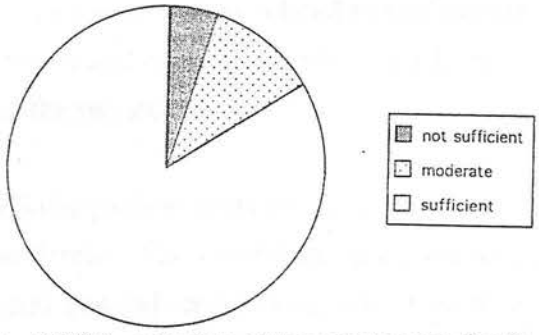


Chart (9.57), evaluation of the maintenance circuit in case study I in terms of general appearance.

d) Safety within the garden: 16% replied that Al Azbakyia garden is not safe, while 11% thought that the garden is fairly safe. A majority of 73% agreed that Al Azbakyia garden is a safe garden, [see chart (9.32 d)].

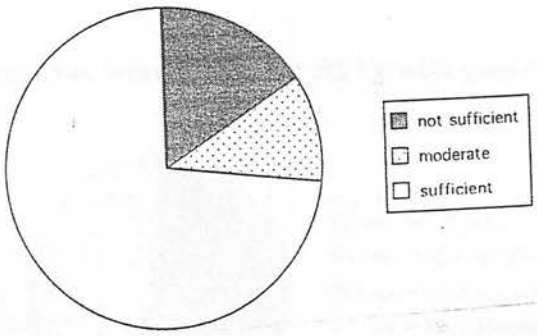


Chart (9.58), evaluation of the maintenance circuit in case study I in terms of safety.

e) The overall satisfaction: 11% were quite satisfied with the garden in general. Most of the responses (89%) agreed that they are surely satisfied in general with Al Azbakyia garden [see chart (9.59)].

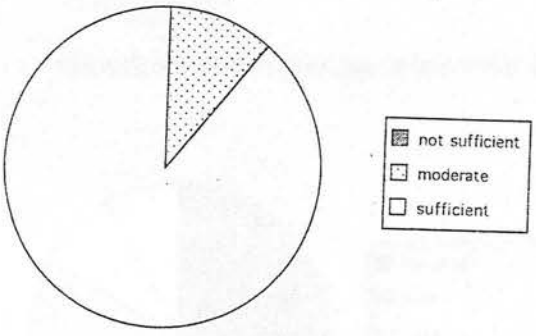


Chart (9.59), evaluation of the maintenance circuit in case study I in terms of overall satisfaction.

In summary, most respondents who preferred Al Azbakyia garden had visited this garden either once or twice within the previous two weeks, followed by have not been there at all in this period of time and only 10% have been there three times. Accordingly, the average of visits for al Azbakyia garden is nearly once a week between respondents.

In finding the participated activities in this garden, it has been found that the social and passive physical activities represent the majority, as sitting, talking, meeting friends, etc. Social activities ranked high in these forms of activities. Finally, they are followed by the active physical and cognitive (one way), or mass were the least categories participated. Opinions were analysed for deducing the motivations driving respondents to participate in such behavioural activities. It has been found that the majority of the answers were for the motivations related to the first three needs of Maslow. The biological and social needs through their contribution to the health and well being, to increase the time spent with the family and for relaxation and rest. These were followed by the opportunity to meet friends, and to make use of public land. The two motivations related to self esteem (to be free from restriction of jobs and to escape crowd and congestion) were very limited in score. Finally and the least motivation scored is the physical exercise.

In evaluating the maintenance circuit of the Azbakyia garden, most respondents in their evaluation to the adequacy of facilities replied moderate. The other noticed evaluations were in terms of the general appearance, safety and general satisfaction, where most of them agreed that they are sufficient. In summary, according to respondents' opinion the maintenance circuit is evaluated as moderate.

9.3.2 Al Dawlia:

A great percentage (65%) of the respondents who prefer the Al Dawlia garden represent the third stage of life-cycle.

21% are the second stage of life-cycle (from 13 to 20 years old) preferred this garden, 9% children as the first stage of life-cycle responded to this garden, and only 5% from the fourth stage (over 55 years old) prefer Al Dawlia garden, [see chart (9.60)].

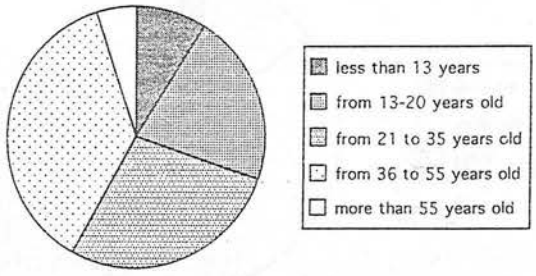


Chart (9.60), respondents' age in case study II

9.3.2.1 To measure the frequency of visits to Al Dawlia garden the answers of the question lead to the following results: The large majority of the respondents (40%) visited the garden once in the previous two weeks, and 32% had been there twice in the same period. 11% had not visited the garden at all in the previous two weeks, and 9% had been there three times and only 8% had been there for more than four times, [see chart (9.61)].

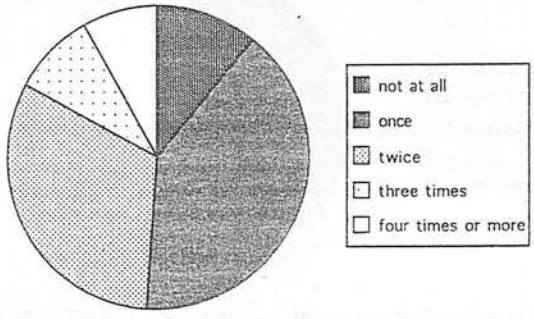


Chart (9.61), frequency of visits within the last two weeks in case study II.

9.3.2.2 Answers were sought to know the major participated activities by respondents in this garden. The following results have been found:

The majority prefer sitting and talking in the garden (24%), 15% choose to meet friends and families and 12% prefer to watch the children and help them to play. The people who enjoyed the physical exercise as walking and playing are represented by 10%, the same as who prefer to watch the performance that exist in this garden (10%), followed by 9% choose riding the mini train in the garden (taftaf), 7% enjoy reading, 7% prefer to watch other people, and only 6% prefer to participate in other activities, [see chart (9.62)].

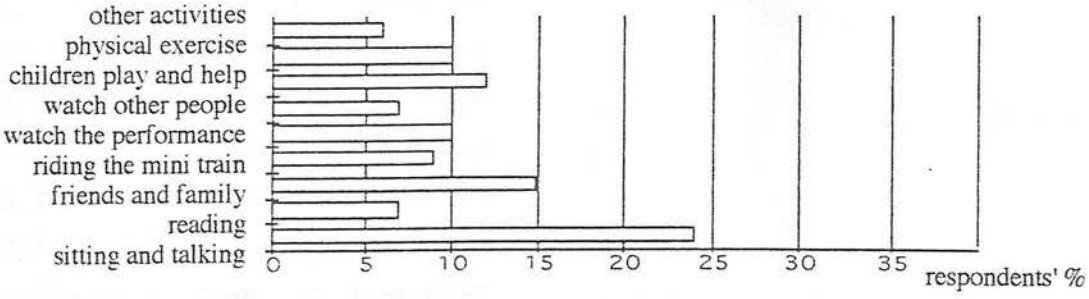


Chart (9.62), majority of participated activities in case study II.

Accordingly the social activities were the main participated activities (39%), followed by the passive physical (30%), the cognitive (21%) and finally the active physical (10%).

9.3.2.3 The following motivations were found in an attempt to capture the reasons that drive participants to perform in the previous activities:

a) <u>These activities attribute to the health and well being</u>: Only 3% disagreed that such motivation drive them to participate in the activities. 12% thought it is a moderate motivation and the large majority (85%) agreed that the health motivation is a strong one that drive them to participate in the previous activities, [see chart (9.63)].

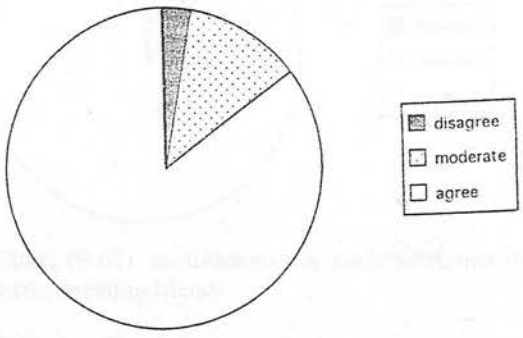


Chart (9.63), motivations for such activities in terms of health and well being.

b)<u>These activities provide joy able physical exercise</u>: 36% disagreed that they are motivated by the physical exercise to attribute in the activities. 21% thought it is an average motivation and 43% agreed that such motivation drive them to participate in the activities, [see chart (9.64)].

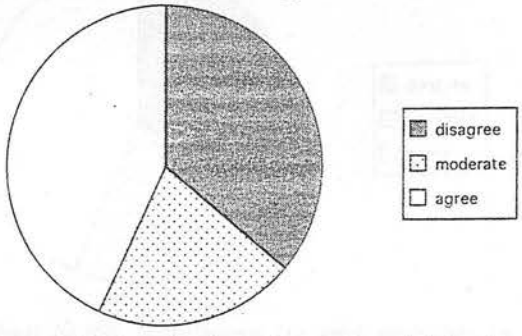


Chart (9.64), motivations for such activities in terms of physical provision.

c) <u>These activities provide relaxation and rest:</u> Only 2% disagreed that they enjoy the previous activities as they provide them with rest and relaxation. 10% were not sure and large majority of 88% agreed rest and relaxation is a strong motivation that drive them to participate in the previous activities, [see chart (9.65)].

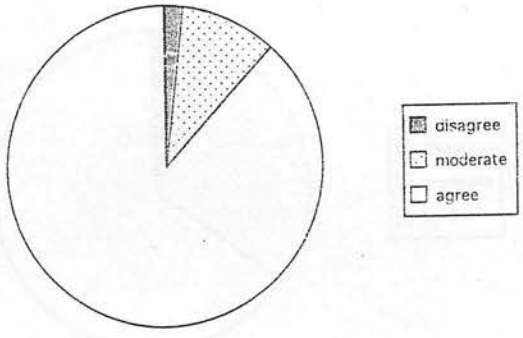


Chart (9.65), motivations for such activities in terms of rest and relaxation.

d) <u>These activities allow getting away from the crowd and congestion:</u> Only 8% disagreed that their participation in the activities in order to escape the crowd and congestion. 35% thought it is not a quite strong motivation and nearly half the respondents (57%) agreed that such motivation is a strong one, [see chart (9.66)].

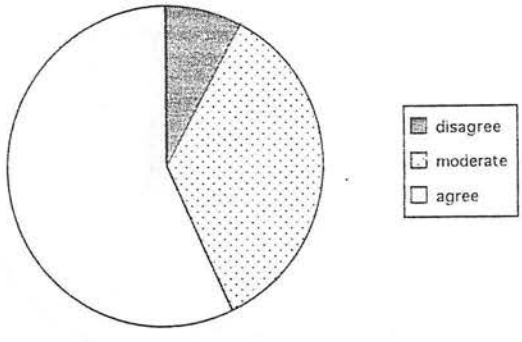


Chart (9.66), motivations for such activities to escape the crowd and congestion.

e) These activities give the opportunity to meet friends: Only 1% thought this is not a strong motivation for their participation. 10% thought that meeting friends as a motivation is an average one and a majority of 89% thought that this is a strong motivation, [see chart (9.67)].

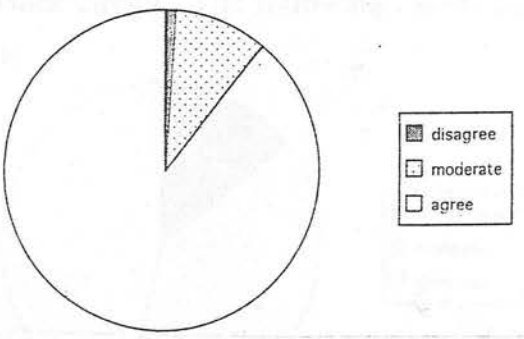


Chart (9.67), motivations for such activities in terms meeting friends.

f) These activities permit the freedom of the restrictions of jobs and social obligations: 34% disagreed that their participation in the previous activities is driven by their need to be free from the restrictions of job. 23% thought it is moderate and 43% agreed that this motivation is a strong motivation that drive them to enjoy the activities participated, [see chart (9.68)].

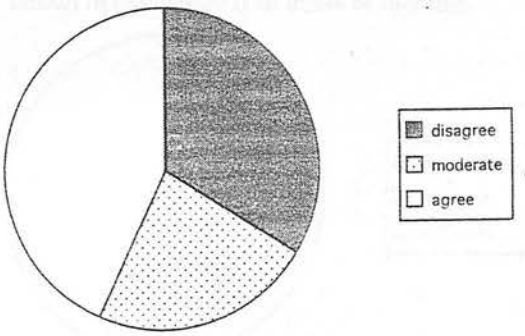


Chart (9.68), motivations for such activities in terms of freedom from the restriction of job.

g) These activities help to make use of the public lands: 10% thought that to participate in the previous activities do not stem from the motivation of using the public land. 25% replied that to make use of the land is a fairly moderate motivation and a majority of 65% agreed that such motivation drive them to enjoy the activities participated, [see chart (9.69)].

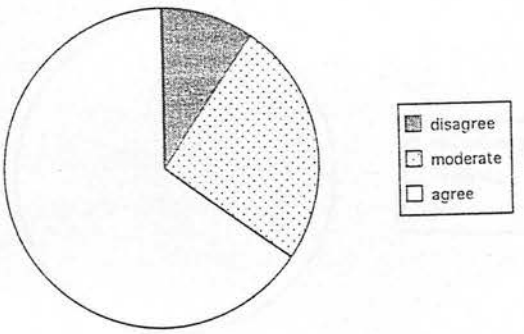


Chart (9.69), motivations for such activities in terms of making use of land.

h) These activities help increasing the time spend with the family: Only 7% disagreed that their participation in the previous activities is driven by their need to spend more time with the family, followed by 17% of the respondents who thought it is moderate. A large majority of 76% agreed that they participate to increase the time spent with the family, [see chart (9.70)].

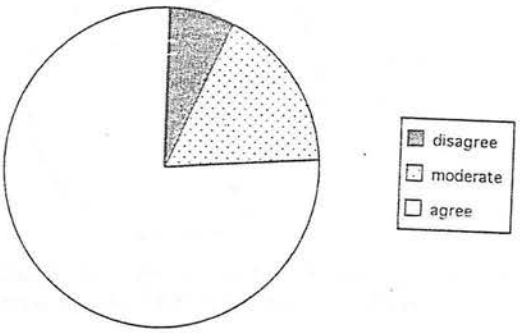


Chart (9.70), motivations for such activities in terms of maximising the leisure time with family.

9.3.2.4 Opinions were sought on the maintenance circuit. The following results have been concluded in terms of the given statements:

a) The adequacy of the facilities in the garden: A minority of 14% replied that the facilities in Al Hadeeka Al Dawlia are not sufficient, 39% thought that the facilities are fairly sufficient and nearly the half (47%) agreed that the facilities are sufficient, [see chart (9.71)].

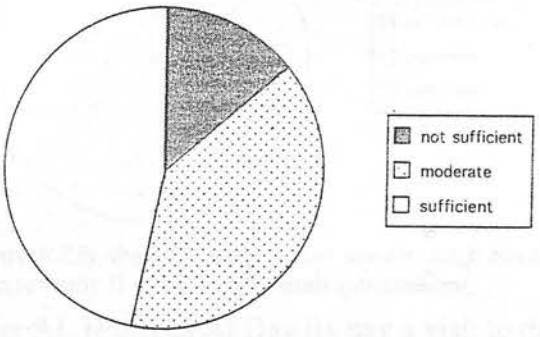


Chart (9.71), the evaluation of the maintenance circuit in case study II in terms of facilities.

b) The help and courteous of the staff: Only 9% replied that the staff in such garden are not helpful. 47% thought that the staff in the garden are quite helpful and 44% agreed the staff in al Dawlia garden are very helpful, [see chart (9.72)].

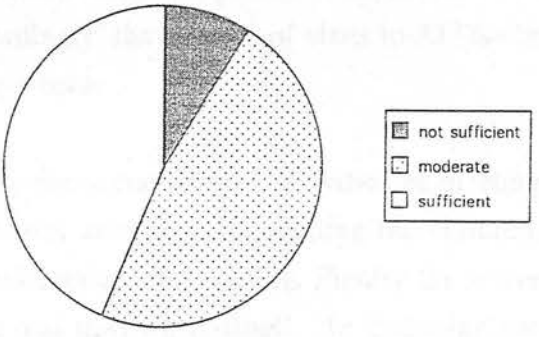


Chart (9.72), the evaluation of the maintenance circuit in case study II in terms of staff help.

c) The appearance of the garden in general: A minority of 2% replied that the general appearance of the garden is not sufficient, followed by 8% who thought the garden's appearance is accepted. A large majority of 90% agreed that the general appearance of al Dawlia garden is sufficient, [see chart (9.73)].

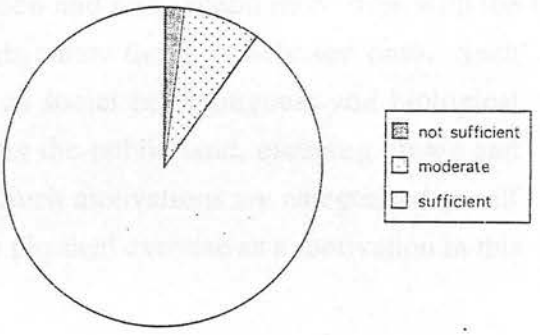


Chart (9.73), evaluation of the maintenance circuit in case study II in terms of general appearance.

d) Safety within the garden: Only 6% replied that it is not sufficient, while 35% thought it is fairly safe. More than half the respondents (59%) agreed that Al Dawlia garden is safe, [see chart (9.74)].

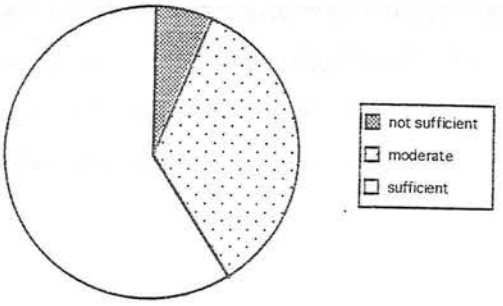


Chart (9.74), the evaluation of the maintenance circuit in case study II in terms of safety.

e) The overall satisfaction: A large majority of the respondents (84%) agreed that they are satisfied in general with this garden. No one disagreed with such opinion and only 16% replied that they are quite satisfied, [see chart (9.75)].

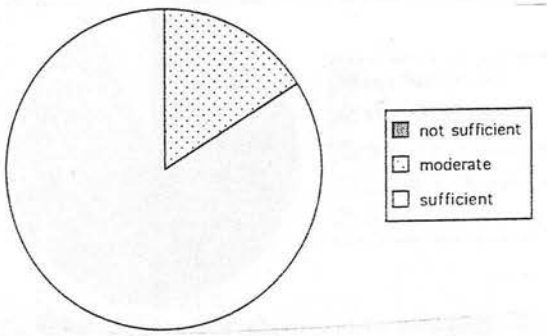


Chart (9.75), the evaluation of the maintenance circuit in case study II in terms of overall satisfaction.

In summary, most of the respondents who prefer AL Hadeeka Al Dawlia pay a visit to the garden either once or twice within the last two weeks. This is followed by people who did not have the time to visit the garden at all within the same period or either has been there three times or more than four times. Accordingly, the average of visits to Al Dawlia garden could be once either a week or every two weeks.

Respondents of Al Dawlia garden seem to enjoy the social passive activities as meeting friends. This was followed by the passive physical activities as watching the children, then the cognitive activities as watching the performance and reading. Finally the active physical activities in terms of doing exercise and playing football. In deducing the motivations driving respondents to participate in such activities, it has been found that most participants prefer these activities for a sum of motivations. Motivations as their contribution to the health and well being, relaxation and rest, spend more time with the family and for the opportunity of meeting friends where the most selected ones. Such motivations are defined by Maslow's hierarchy as social belongingness and biological needs. These motivations were followed by using the public land, escaping crowd and congestion and to be free form jobs obligations. Such motivations are categorised as self esteem. In relation to the previous case study, the physical exercise as a motivation in this case study scored more than Al Azbakyia (43%).

Finally in evaluating the maintenance circuit of Al Dawlia garden; the response to the adequacy of the facilities was between moderate and satisfied, the same was noticed for both the help from the staff and safety within the garden. On the other hand, most respondents were satisfied in general and agreed that the appearance of the garden is sufficient (nearly 90%). According to the responses, the evaluation of the maintenance circuit is moderate in Al Hadeeka Al Dawlia.

9.3.3 Al Sayyida Zayinab:

Half the respondents who prefer the Al Sayyida Zayinab garden are from the first stage of life-cycle, as children less than 13 years old. The second stage as teenagers who are grouped (from 13 to 20 years old) represent 43%, while the third stage of life-cycle (from 21 to 55 years old) represent only 7%, representing the maintenance circuit.

None of the respondents belonged to the fourth stage of life cycle (more than 55 years). Since Al Sayyida Zayinab garden is a cultural garden for children, the previous distribution of age group is very reasonable, [see chart (9.76)].

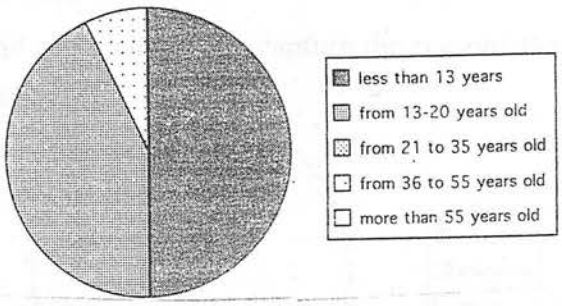


Chart (9.76), respondents' age in case study III.

9.3.3.1 Data were sought to conclude the average of visits to the garden within the two weeks previous to the distribution of the questionnaire. A large majority of 86% had been there for more than four times, a minority of 7% were there once in the previous two weeks (7%), the same as three times (7%), [see chart (9.77)].

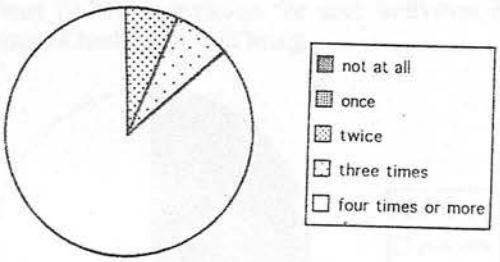


Chart (9.77), frequency of visits within the last two weeks in case study II.

9.3.3.2 Opinions were sought to know the major participated activities by respondents in Al Dawlia garden. The following answers have been found:

The large majority of the respondents was distributed between four activities. These most preferred activities are, watch the performance that exist in this garden (24%), sitting and talking (21%), meeting friends and families (20%) and 18% enjoy reading. The minor preferred activities were watching other people (3%) and 2% prefer to watch the children and help them to play. On the other hand 12% prefer to participate in other activities. Within Al Sayyida Zayinab garden the other activities are cultural as computer games, needle work, clay practice and singing, [see chart (9.78)]. Accordingly, the cognitive activities represent the main category (57%), followed by the social activities (41%), and finally the physical activities (2%).

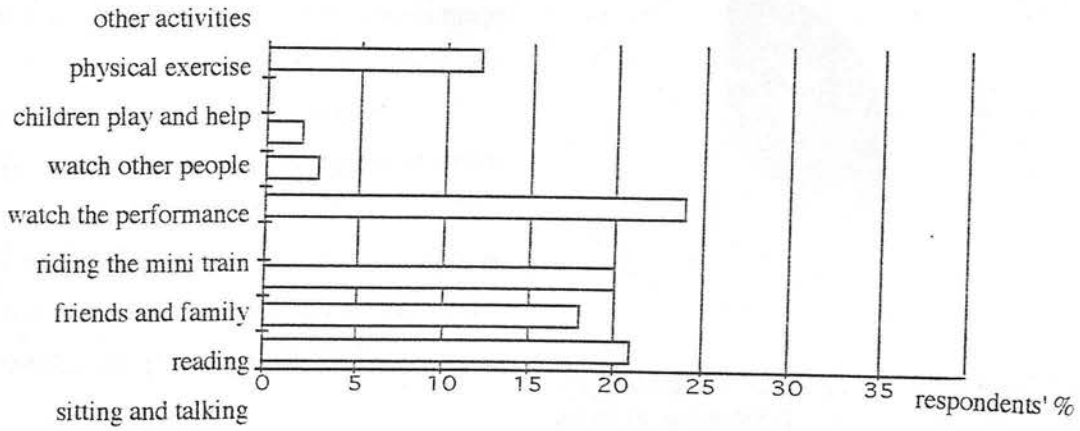


Chart (9.78), the majority of participated activities in case study III.

9.3.3.3 The following motivations were found in an attempt to capture the reasons that drive participants to perform in the previous activities:

a) <u>These activities attribute to the health and well being</u>: All the respondents of Al Sayyida Zayinab agreed that these activities contribute to their health and well being, [see chart (9.79].

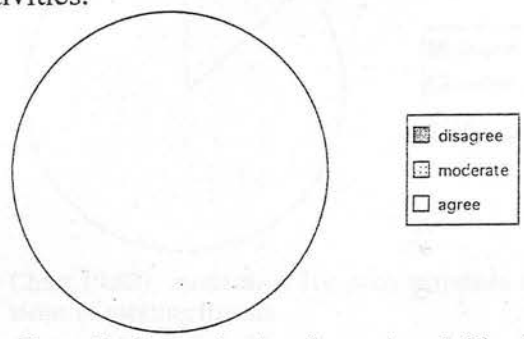


Chart (9.79), motivation for such activities in terms of health and well being.

b)<u>These activities provide joy able physical exercise</u>: Nearly half the respondents (43%) disagreed about such statement. 21% thought it is a moderate motivation and 36% agreed that they participate such activities to enjoy the physical exercise, [see chart (9.80)].

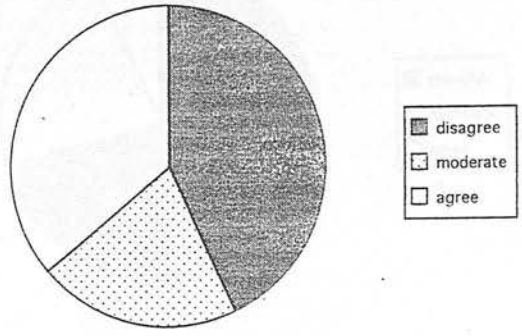


Chart (9.80), motivation for such activities in terms of physical provision.

c) <u>These activities provide relaxation and rest</u>: All respondents agreed that they participate in these activities for relaxation and rest, [see chart (9.81)].

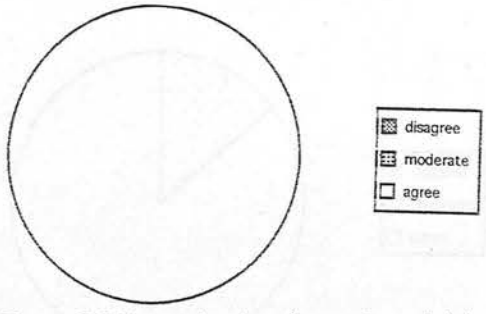


Chart (9.81), motivation for such activities in terms of rest and relaxation.

d) <u>These activities allow getting away from the crowd and congestion</u>: 36% disagreed that the preferred activities they participate allow them to get away from the crowd and congestion. Half the respondents (50%) thought it is a moderate motivation to drive them to participate in the activities. The minority (14%) agreed that they engage in such activities in order to escape the crowd and congestion, [see chart (9.82)].

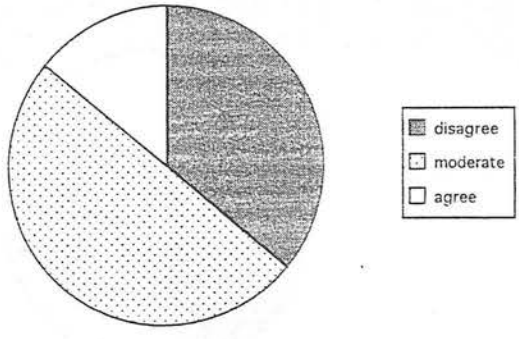


Chart (9.82), motivation for such activities in terms of escape the crowd and congestion.

e) These activities give the opportunity to meet friends: No one disagreed with this motivation and only 14% thought it is an average motivation. The large majority (86%) agreed that meeting friends as a motivation for the activities they participate is a strong motivation, [see chart (9.83].

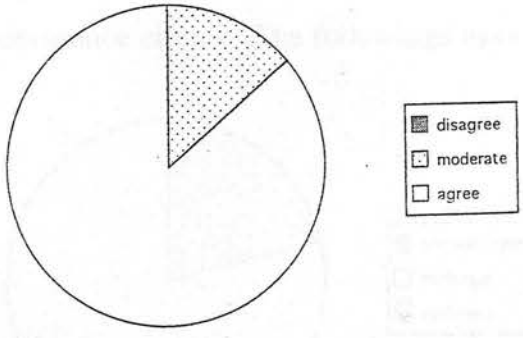


Chart (9.83), motivation for such activities in terms of meeting friends.

f) These activities permit the freedom of the restrictions of jobs and social obligations: A large percentage (71%) disagreed with this motivation. 22% thought it is a moderate motivation and the minority of 7% agreed that the motivation of being free from the restrictions of job drive them to participate in the preferred activities, [see chart (9.84)].

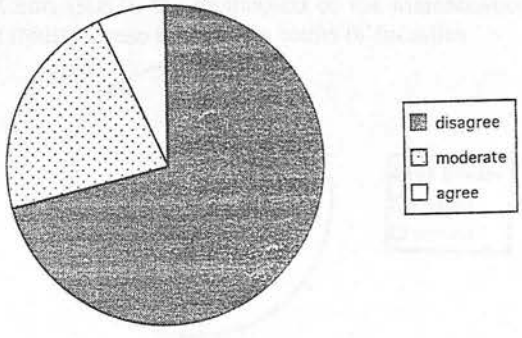


Chart (9.84), motivation for such activities in terms of to be free of restrictions of jobs.

g) These activities help to make use of the public lands: No none disagreed with this motivation. 14% thought it is an average but not strong motivation, while the majority (86%) agreed that they prefer to participate in the activities to make use of the public lands, [see chart (9.85)].

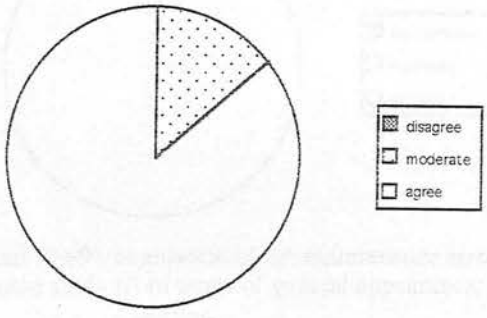


Chart (9.85), motivation for such activities in terms of use of public land.

h) These activities help increasing the time spend with the family: Nearly half the percentage (48%) disagreed that this is a strong motivation, 22% thought it is an average motivation and 30% agreed that they enjoy their participation in the previous activities in order to increase the time spend with the family, [see chart (9.86)].

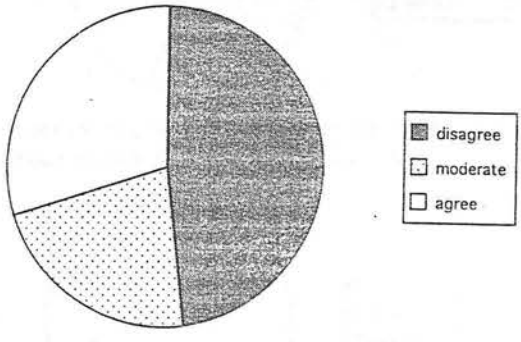


Chart (9.86), motivation for such activities in terms of maximising the time with family.

9.3.3.4 Opinions were sought to evaluate the maintenance circuit. The followings have been revealed in terms of the given statements:

a) The adequacy of the facilities in the garden: 21% thought that the adequacy of the facilities in Al Sayyida Zayinab garden is moderate. The large majority (79%) agreed that the facilities in al Sayyida Zayinab garden are sufficient, [see chart (9.87)].

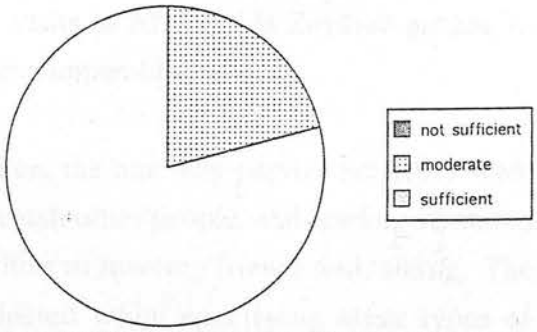


Chart (9.87), the evaluation of the maintenance circuit in case study III in terms of facilities.

b) The help and courteous of the staff: The minority (7%) thought the help of the staff is moderate. The large percentage (93%) agreed that the staff in al Sayyida Zayinab garden is very helpful, [see chart (9.88)].

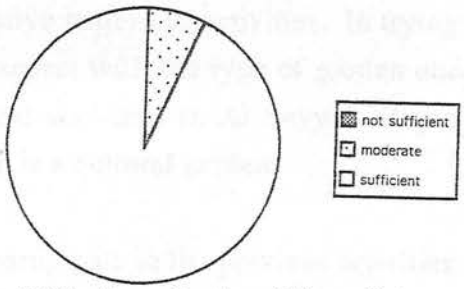


Chart (9.88), the evaluation of the maintenance circuit in case study III in terms of staff help.

c) The appearance of the garden in general: All respondents agreed that the general appearance of al Sayyida Zayinab garden is sufficient, [see chart (9.89].

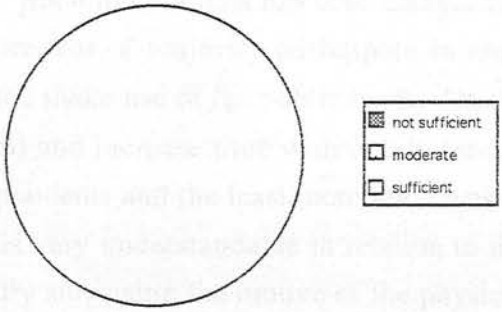


Chart (9.89), evaluation of the maintenance circuit in case study III in terms of general appearance.

d) Safety within the garden: 63% thought that the safety is moderate. 47% agreed that al Sayyida Zayinab garden is safe, [see chart (9.90)].

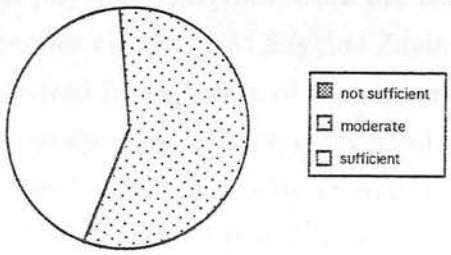


Chart (9.90), the evaluation of the maintenance circuit in case study III in terms of safety.

e) The overall satisfaction: All respondents agreed that they are satisfied in general with this garden, [see chart (9.91)].

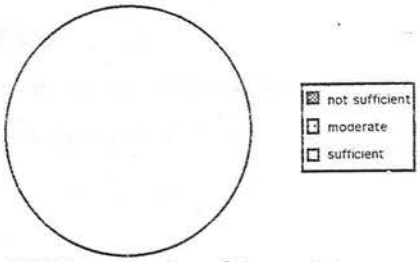


Chart (9.91), evaluation of the maintenance circuit in case study III in terms of overall satisfaction.

In conclusion, the majority of respondents who preferred this garden visited it more than four times in the previous two weeks (86%). On the other hand, only 7% were there once or three times (each). Accordingly, the average visits to Al Sayyida Zayinab garden, as stated by responses, is four times a week, which is comparably high.

In deducing the participated activities in the garden, the one way passive activities seem to rank high in this garden (watch performance, watch other people, and reading summing 35%). This was followed by social passive activities as meeting friends and talking. The physical pattern of activity has only been selected when specifying other types of activities. In relating this to the age of participants, the result was surprising as children are supposed to be more attracted and engaged in active pattern of activities. In trying to find a reason for such result, and comparing such aspect with the type of garden under study, the result was very reasonable. The physical activities in Al Sayyida Zayinab garden are limited and demarcate, because the garden is a cultural garden.

In deducing the motivations driving respondents to participate in the previous activities, it has been found that all respondents agreed that such activities contribute to their health and well being, as well as for relaxation and rest. Such motivations has been categorised according to Maslow as biological needs. Moreover, a majority participate in such activities to meet friends (social belongingness)and make use of the public lands. On the other hand in choosing escape crowd (self esteem) and increase time with family (social belongingness), both were more moderate by respondents and the least motivation was to be free form job restrictions (self esteem). This is very understandable in relation to the behaviour and age of respondents. What was really surprising the motive of the physical exercise, where 36% agreed that such motivation drive them to participate in the selected activities. Children chose such motivation although physical activities were the least participated. Finally in their evaluation to the maintenance circuit of Al Sayyida Zayinab garden, it has been found that the majority were satisfied in all terms of maintenance facilities, staff help, general appearance, and overall satisfaction. On the other hand, in terms of safety, nearly half of the respondents were satisfied, followed by around 35% who thought the safety terms are moderate and only 6% replied that it is not safe. Accordingly, in all terms of maintenance, the garden seems sufficient.

9.4 Motivations For Participated Activities:

The participated activities were then analysed in terms of the selected motivations which will be categorised according to Maslow's motivations as follows:

9.4.1 The biological motivations.

9.4.2 Safety motivations and others.

9.4.3 The social belongingness.

9.4.4 Self esteem.

9.4.1 The Biological Motivation and Categories of Activities Participated:

The biological motivation is the first level in Maslow's hierarchy. In the questionnaire this motivation is covered through three points, first the health and well being where respondents were asked: "these activities attribute to my health and well being". Secondly, is the aspect of the physical exercise through the question of: "these activities provide me with enjoyable physical exercise". Finally the third point is the rest and relaxation where respondents were asked: " these activities provide me with rest and relaxation". Chart (9.92) illustrates the relation between the three points forming the biological motivation with relation to the activities participated.

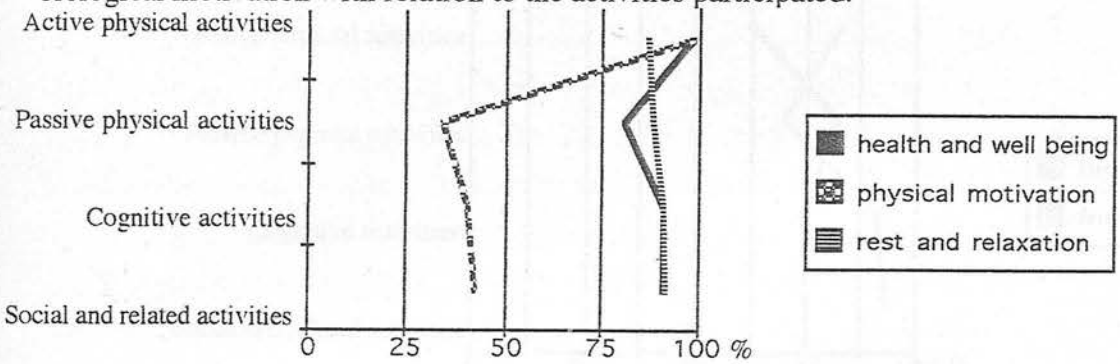


Chart (9.92), The participated activities And their relation to the biological motivation.

The chart above shows that respondents participate in most activities motivated by their biological needs specially in terms of rest and relaxation. The active physical activities are the major participated activities as a result of this motivation, while on the other hand the passive physical activities are the least participated as a result of this motivation.

9.4.2 Safety motivations and others and Categories of Activities Participated:

The second level in Maslow's triangle is devoted to safety needs. Such motivation is addressed in the questionnaire in terms of the garden itself through the question: "these activities enable me to make use of public land" in terms of safety. Chart (9.93) shows the relation between the second level of motivations and the activities' categories. It shows that the motivation is moderately strong (50%-75%) and more related to the social, cognitive, passive and the least were the active physical activities. This means that the examined samples' participation in the active physical activities are not largely motivated by safety. On contrary, this motivation is relatively strong in relation to the rest of the activities.

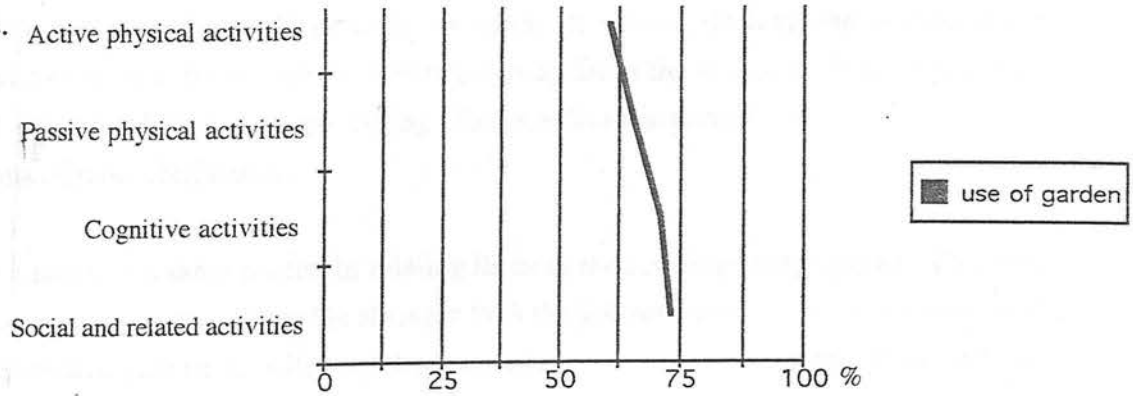


Chart (9.93), the safety motivation and the categories of activities participated.

9.4.3 Social Belongingness and Categories of Activities Participated:

Social belongingness as the third motivation in Maslow's hierarchy which is symbolised in the questionnaire through two aspects; family and friends. The family social contacts through the questionnaire is addressed as "these activities enable me to make maximum use of my leisure time and spend it with my family". The friend's social dimension is covered through asking the question of "these activities give me the opportunity to meet and associate with friends". Chart (9.94), illustrates the relation between the motivation and the categories of activities participated.

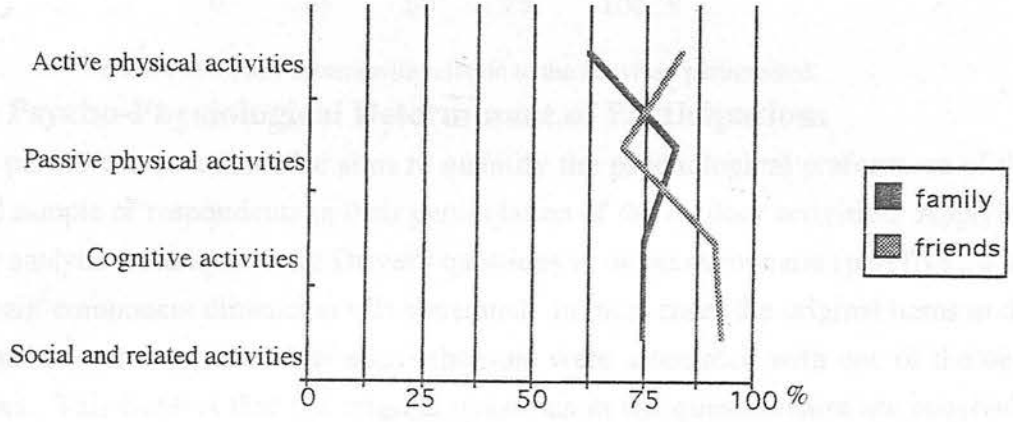


Chart (9.94), social belongingness and its relation to the activities participated.

The chart shows that both forms of activities are considered strong in terms of all categories of activities. The difference between both forms is with their relation to the physical activities in both forms. The passive form of activities is more strongly related to the family, while the active is more strongly related to the friends than the family. Accordingly, social belongingness is a strong motivation with relation to categories of activities and the examined sample participates in passive physical activities when participating with family members more than friends and vice-versa.

9.4.4 Self Esteem and the activities participated:

The self esteem motivation is the fourth level of motivations in Maslow's hierarchy. This motivation is the weakest motivation that drive the examined sample of respondents to participate in outdoor recreation in comparison to the other three motivations. The motivation is addressed in the questionnaire in two forms; in terms of crowd and in terms of job obligations. In terms of crowd, through the questionnaire addressed as :'these activities allow me to get away from the crowd and congestion'. In terms of job obligations through asking "these activities permit me to be free of the restrictions of jobs obligations'.

Both gave nearly the same results in relating them to the activities participated. The only difference was that escape crowd is stronger than the job restriction especially in terms of social and related activities. Although both are not strong motivations (less than 50%), in terms of active physical activities, [see chart (9.95)].

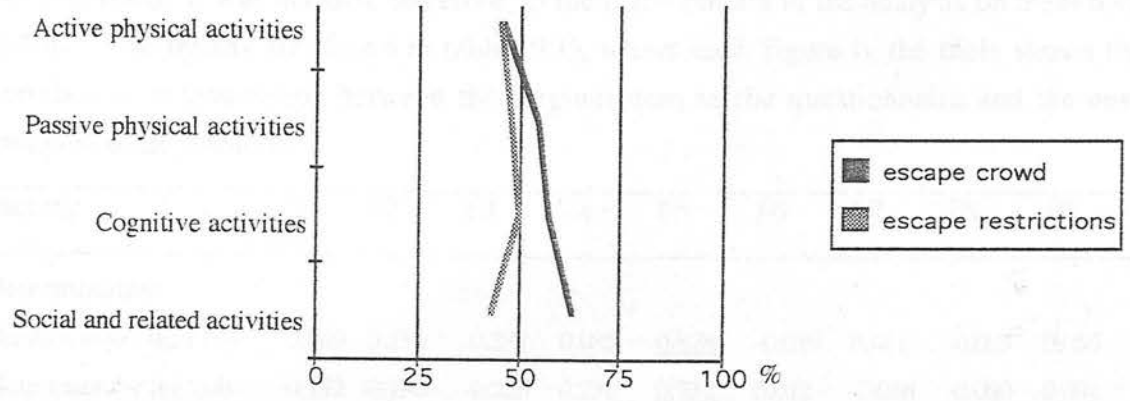


Chart (9.95), self esteem with relation to the activities participated.

9.5 The Psycho-Physiological Determinant of Participation:

The fifth part of the questionnaire aims to quantify the psychological preferences of the examined sample of respondents in their participation of the outdoor activities. Applying the factor analytic technique to the Driver's questions in the questionnaire (part five), a set of principals' component dimension was generated. In most cases the original items in the questionnaire were independent of each other and were associated with one of the new dimensions. This implies that the original questions in the questionnaire are relatively independent of each other and may have been validated by using factor analysis, as this is common in questionnaire design, by Driver himself.

If this is the case it would add support to the view that in this cross-cultural study once again Driver's original questions have been found to be measuring something that is independent of the rest in the questionnaire. However, before analysing the data, a second feature of factor analysis has to be taken into account. This technique examines the data structure and begins by drawing out as many variations in the data as can be found. All the questions associated with this initial largest variances are then taken out of the data set and a procedure begins again. Looking at the remaining variances, finding the most of the other questions have in common and then that is taken to inform the second principal component and the procedure continues. By proceeding in this way, therefore, a proximate component as we go, from the first onwards always takes out less and less of the variations in data as the technique proceeds. There is a rule thumb that a principle component should take out at least the variance expected on random bases from that associated with any individual questions. That means for example if there are thirty-one questions in the questionnaire, each random basis would be expected to take hundred divided by thirty-one which gives about three percent of variation associated with each of the questions. Any new component that took out less than three, would be ruled out.

When the results from Driver's questions were examined in this way, it has been found that nine factors passed this critical test. In other words, there are nine new components that take out more than three percent of the variation of the data from the original thirty-

one questions. It was decided, therefore, to focus the remain of the analysis on these nine factors. The results are shown in table (9.1), where each figure in the table shows the correlation or association between the original item in the questionnaire and the new grouping of dimensions.

Factors:	F1	F2	F3	F4	F5	F6	F7	F8	F9
Determinants:									
Children enjoy their time	-0.049	0.135	-0.231	0.085	0.828	-0.019	0.061	-0.083	0.055
More space for the kids	-0.172	0.136	-0.225	0.230	0.732	0.012	-0.058	-0.080	0.091
Kids play with other kids	-0.253	-0.139	0.019	0.165	0.556	-0.163	0.265	0.006	0.264
good experience for family	0.188	0.148	0.060	-0.110	0.632	0.359	-0.287	0.285	0.069
family together	0.007	0.166	0.032	0.050	0.529	0.520	-0.260	0.351	0.241
doing things with friends	-0.190	0.176	-0.036	0.407	0.213	0.548	-0.068	0.005	0.279
talk to new people	-0.194	-0.022	-0.029	0.182	0.118	0.038	0.131	-0.075	0.833
to build new friendship	-0.250	0.051	-0.021	0.301	0.199	-0.056	-0.117	-0.023	0.761
something.exiting happen.	-0.197	0.218	-0.198	0.678	0.139	0.281	0.043	-0.095	0.016
observe others	-0.088	0.134	-0.051	0.826	0.103	0.056	-0.192	0.045	0.167
seeing new faces	-0.023	0.032	-0.023	0.844	0.083	-0.071	-0.019	0.092	0.191
relax physically	0.700	-0.024	0.184	-0.009	-0.021	0.041	-0.043	0.244	-0.200
mind can slow for a while	0.782	-0.049	0.190	-0.146	-0.137	0.072	0.003	0.106	-0.147
experiencing the peace	0.738	0.025	0.314	-0.088	-0.173	0.121	0.008	0.123	-0.082
getting away form crowd	0.714	0.082	0.250	-0.091	-0.122	0.131	-0.114	-0.003	-0.271
change from daily routine	0.825	-0.020	-0.015	-0.079	0.015	-0.253	0.048	0.023	0.006
get away from responseb.	0.688	0.061	-0.097	0.028	0.088	-0.422	0.022	0.187	0.092
enjoy the green	0.284	0.034	-0.017	-0.005	0.041	0.062	-0.009	0.866	-0.034
close to nature	0.161	0.362	0.003	0.093	-0.042	-0.031	-0.013	0.784	-0.086
for the exercise	0.286	-0.109	0.002	-0.313	-0.413	0.213	0.463	-0.175	0.335
keep me in shape	0.421	0.116	0.227	-0.150	-0.302	0.106	0.550	0.032	0.259
keep me busy	-0.125	-0.002	0.159	-0.011	0.034	-0.121	0.860	0.038	-0.033
avoid boredom	-0.033	-0.015	0.303	-0.106	0.041	-0.220	0.739	-0.077	-0.016
use my mind	0.203	-0.052	0.736	-0.144	-0.052	-0.153	0.223	-0.080	0.067
think about self	0.276	-0.045	0.728	-0.150	-0.136	-0.045	0.177	-0.054	0.053
being in an open space	0.007	0.135	0.257	-0.046	0.095	-0.584	0.179	-0.006	0.149
being alone	0.161	0.076	0.749	0.069	-0.194	-0.032	0.146	0.116	-0.178
enjoy a sunny spot in wint.	0.076	0.736	-0.028	0.033	-0.029	-0.090	-0.056	0.347	0.011
get away from sum. heat	-0.088	0.779	0.168	0.025	0.103	-0.116	0.025	0.052	-0.001
enjoy shady spot in sum.	0.026	0.865	0.006	0.090	0.141	0.070	-0.020	0.092	-0.048
here every thing safe	0.010	0.611	-0.204	0.220	0.053	0.128	-0.052	-0.075	0.061

Table (9.1) the correlation between the original determinants and the new grouping of factors

Examining the table shows that the first factor is associated with the original questions, (5.12), (5.13), (5.14), (5.15), (5.16) and to a less extend (5.17). These questions share an aspect of relaxation and therefore the factor itself can be considered to be associated with "relaxation and escaping routine and responsibilities". The high correlation on the second factor is associated with questions, (5.28), (5.29), (5.30), and to a less extent (5.31). These are associated with the environment and the climate in particular, with question (5.31) also tapping aspects of safety and security. So clearly factor two is directed towards "safety and physical balance".

The third factor is associated with questions (5.24), (5.25) and (5.27). These are best termed cognitive as self actualisation for they refer to self development when alone. Factor three could be referred to as "intellectual aestheticism". New factor, number four is associated with questions (5.9), (5.10) and (5.11), which are associated with observing action and other people. Factor four, hence, is "enjoy watching".

Principle component five has to do with aspects of children and family, so it could be labelled as "family aspects". Factor six is more closely associated with questions (5.1), (5.2) and (5.4) which again are to do with social issues but in a slightly more general way extending from the family to other patterns of friendship. This factor is associated with a widening pattern of social relationships that are conducted with open doors. In other words, with this factor, spatial aspects are starting to be more related and identified. Factor six, accordingly refers to "spatial social behaviour".

Factor seven is associated with questions (5.23) and (5.22). These are actually determinants which drive participants to be in 'a one way' relation. Hence, factor seven reflects "killing time and avoiding boredom". Factor eight is clearly associated with questions (5.18) and (5.19), which has to do also with the advantages of parks for the reminding participants of the "closeness and enjoyment of nature". Finally, factor nine is associated with questions (5.7) and (5.8), which is associated with being in a place where there is the possibility of the "potential of new friendship".

Table (9.2) displays the factors resulted from the factor analysis technique applied to the modified determinant of Driver's pool.

FACTORS DETERMINING THE RECREATION BEHAVIOUR
WITH REFERENCE TO THE EXAMINED SAMPLE

F1: RELAXATION, ESCAPE ROUTINE AND RESPONSIBILITIES:
To relax physically
So my mind can slow down for a while
Experiencing the peace and calm
Getting away form crowded situation
Change from my daily routine
To get away from the responsibilities

F2: SAFETY AND PHYSICAL BALANCE
Enjoying a sunny spot in winter
Getting away from the heat of the summer
Enjoying a shady spot
Being here were things would be fairly safe

F3: INTELLECTUAL AESTHETICISM
To use my mind
To think about my self and reflecting
Being alone

F4: ENJOYING WATCHING
Something exciting is always happening
Observing other people enjoying themselves
Seeing new faces

F5: FAMILY ASPECTS
The children can enjoy their time
More space for my kids
Being a good experience to the family

F6: SPATIAL SOCIAL BEHAVIOUR
To help bring the family together
Doing things with my friends
Just being in an open space

F7: KILLING TIME, AVOIDING BOREDOM
To keep me busy
To avoid boredom

F8: ENJOYING NATURE
Enjoy the 'green'.
To be close to nature

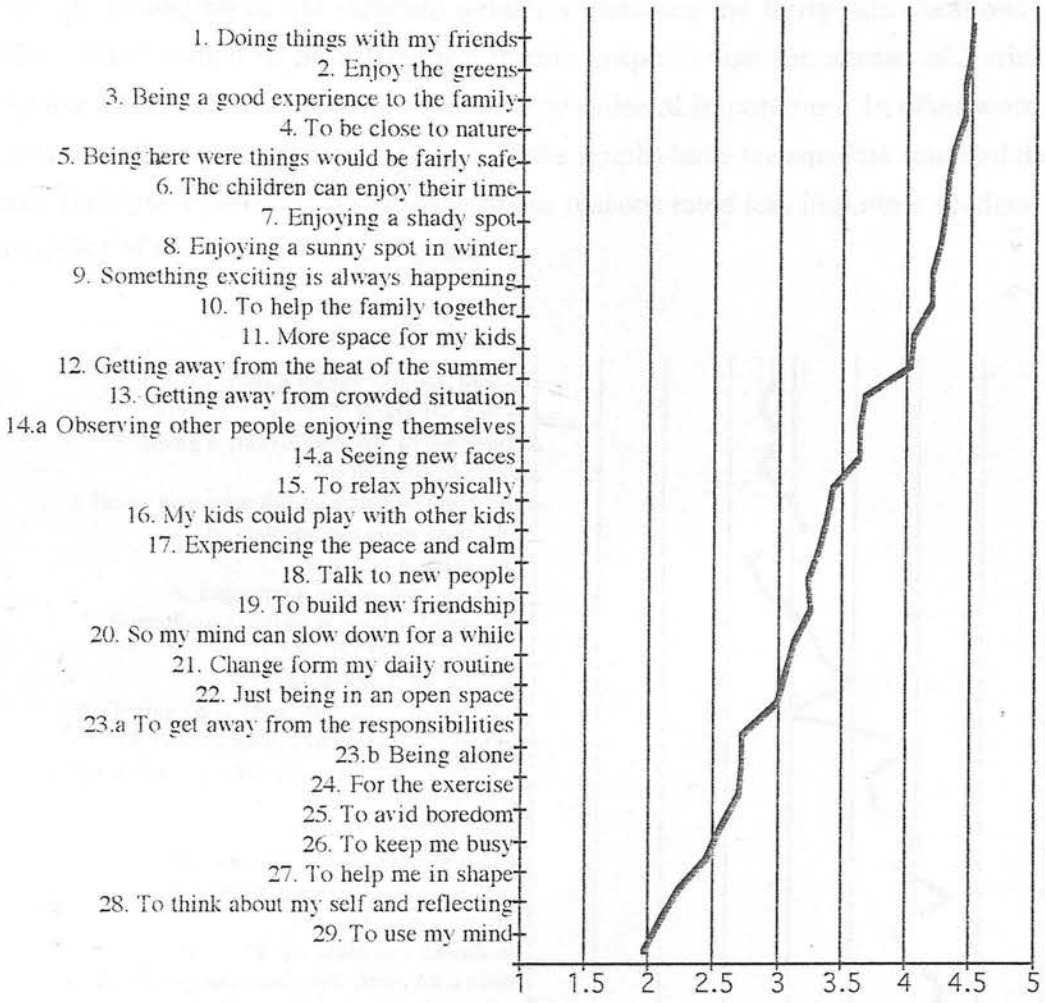
F9: MEETING NEW FRIENDS
Talk to new people
To build new friendship

Table (9.2), the quantification of the psycho-physiological determinant with reference to the examined sample.

In ranking the nine factors according to the importance or preferences' profiles of participants, [table (9.3)], graph (9.1) has been deduced.

	no. of cases	min.	max.	mean	stand. deviation
Determinants:					
5.1	205	1.00	5.00	4.317	1.049
5.2	201	1.00	5.00	4.040	1.232
5.3	181	1.00	5.00	3.370	1.430
5.4	204	1.00	5.00	4.436	0.942
5.5	205	1.00	5.00	4.195	1.116
5.6	207	1.00	5.00	4.502	0.929
5.7	206	1.00	5.00	3.228	1.411
5.8	206	1.00	5.00	3.243	1.485
5.9	207	1.00	5.00	4.203	1.055
5.10	207	1.00	5.00	3.618	1.312
5.11	207	1.00	5.00	3.618	1.334
5.12	207	1.00	5.00	3.411	1.523
5.13	207	1.00	5.00	3.121	1.604
5.14	207	1.00	5.00	3.309	1.640
5.15	207	1.00	5.00	3.657	1.486
5.16	207	1.00	5.00	3.058	1.569
5.17	205	1.00	5.00	2.712	1.524
5.18	206	1.00	5.00	4.481	0.871
5.19	207	1.00	5.00	4.435	0.878
5.20	206	1.00	5.00	2.689	1.546
5.21	205	1.00	5.00	2.224	1.461
5.22	206	1.00	5.00	2.447	1.446
5.23	207	1.00	5.00	2.551	1.519
5.24	206	1.00	5.00	1.961	1.328
5.25	205	1.00	5.00	2.078	1.344
5.26	206	1.00	5.00	2.981	1.478
5.27	205	1.00	5.00	2.712	1.550
5.28	207	1.00	5.00	4.251	0.889
5.29	207	1.00	5.00	4.019	0.980
5.30	207	1.00	5.00	4.295	0.822
5.31	207	1.00	5.00	4.367	0.986

Table (9.3) Preference profile and standard deviation for the psycho-physiological determinants



Graph (9.1), Preferences profiles of the factors.

Factor one "Relaxation": is considered a moderate factor in importance.

Factor Two "Safety and physical balance" is considered as moderate, although it is more important than the previous as it includes one of the important environmental element which has to do with spatial, (safety) more than climatic.

Factor three: "Intellectual aestheticism" is one of the least important factors.

Factor four: "watching others" is considered a moderate factor in importance.

Factor five "Family aspects": is one of the most important factors, except for the aspects of social environment and family (more space for the kids) which is ranked as moderate in importance.

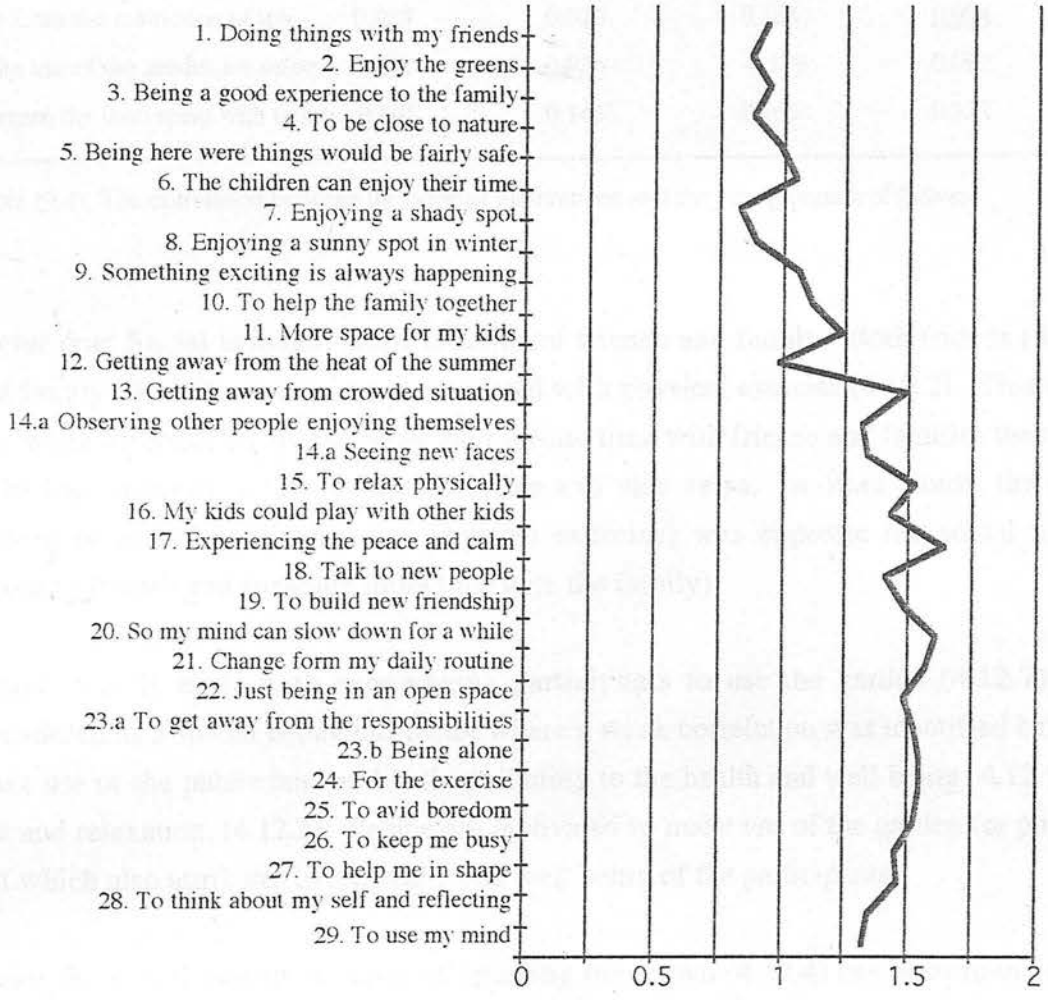
Factor six "Spatial social behaviour": this factor is divided to two, the very most important represented by friends while the moderate important is the family.

Factor seven "killing time and avoiding boredom": definitely one of the least important factors in preferences' profiles.

Factor eight "Enjoying nature": is considered a very important factor.

Finally, Factor nine "meeting new friends": is ranked a moderately factor in terms of importance.

On the other hand, in order to rank the determinants in order graph (9.2) is concluded from the deduction of the standard deviation between the thirty one questions in table (9.3). What turned to be interesting in this graph is that the spread of variability in response follows a similar trend to the ranked order of importance. In other words, those reasons rated most important (at the top of the graph) have the smallest standard deviation about their importance. Consequently, those reasons rated less important produce greater variability of response across the graph.



Graph (9.2), Standard deviation between the factors.

In applying the same process of data reduction using factor analysis, to the motivation questions in the questionnaire [questions (4.12)], a set of main component factors were generated. Results from data reduction revealed a sum of unique factors that are independent of each others. Accordingly, the same process, that has been used in Driver's questions, for limiting the number of factors for analysing took place. By proceeding in this way, this time four factors passed this critical exam [see table (9.4)]. Hence the identification of the correlated factors was carried out for these four factors, revealing the followings:

Factors:	F1	F2	F3	F4
Motivations:				
for the health and well being	-0.394	0.562	0.180	-0.437
enjoy the physical exercise	-0.837	0.078	0.067	-0.051
for the rest and relaxation	0.024	0.547	0.530	0.001
to get away from the crowd	0.098	-0.098	0.876	0.142
to meet friends	0.595	0.311	0.226	-0.301
free from the restriction of job	0.055	0.026	0.163	0.904
make use of the garden for safety	0.232	0.826	-0.179	0.092
increase the time spent with family	0.661	0.146	0.166	0.327

Table (9.4), The correlation between the original motivations and the new grouping of factors.

Factor one: Social belongingness, in terms of friends and family. Both friends (4.12.5) and family (4.12.8) were opposite correlated with physical exercise (4.12.2). This shows that when respondents are spending their leisure time with friends and families they seem to be less engaged in the physical exercise and vice versa. In other words, the active pattern of activities (engaged in physical exercise) was opposite the social pattern (meeting friends and spending more time with the family).

Factor two: is to do with encouraging participants to use the garden (4.12.7), it is considered as a spatial behaviour factor where a weak correlation was identified between make use of the public land and both attributing to the health and well being (4.12.1) and rest and relaxation, (4.12.3). People are motivated to make use of the garden for physical rest which also attributes to the health and well being of the participants.

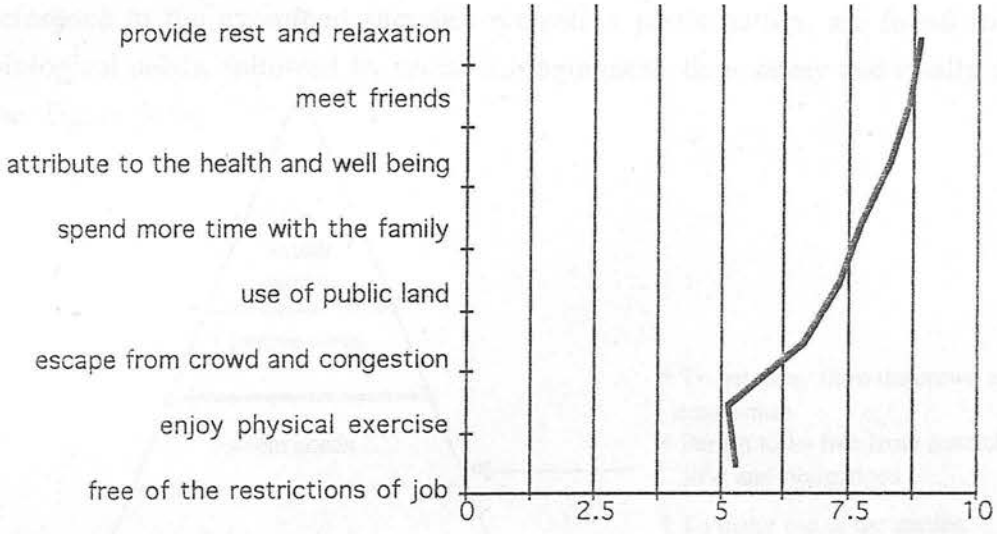
Factor three: self esteem, in terms of escaping the crowd (4.12.4) has been found not to correlate with any other dimension.

Finally factor four: is a factor that was not correlated with any of the other dimensions. Although the term free from job ranked high in such factor.

In ranking the four factors according to their preferences profiles, [table (9.5)], graph (9.4) has been resulted.

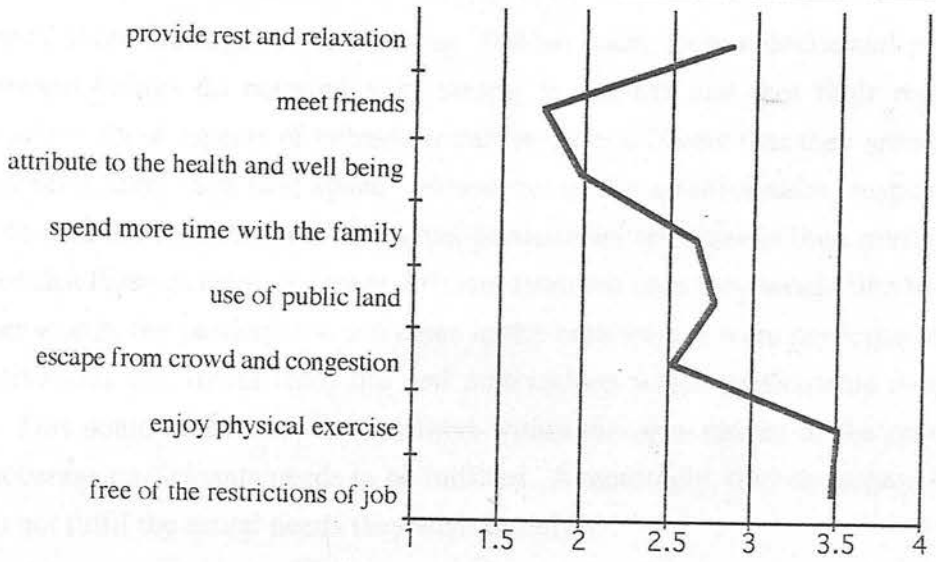
	no. of cases	min.	max.	mean	stand. deviation
Motivations:					
for the health and well being	206	0.00	10.00	8.325	1.962
enjoy the physical exercise	206	0.00	10.00	5.131	3.511
for the rest and relaxation	206	0.00	10.00	8.825	2.845
to get away from the crowd	206	0.00	10.00	6.626	2.524
to meet friends	206	0.00	10.00	8.626	1.745
free from the restriction of job	206	0.00	10.00	5.926	3.472
make use of the garden	205	0.00	10.00	7.307	2.760
increase the time spent with family	206	0.00	10.00	7.728	2.647

Table (9.5), Preference profile and standard deviation for activities' motivations



Graph (9.3), preferences profile of activities motivations.

The motivations were ranked from very much important to not at all as follows: provide rest and relaxation, social-friends, health and well being, social-family, use of garden, escape the crowd, physical, and free from the restrictions of job as a motivation. On the other hand in deducing the standard deviation between these eight motivations, in the previous table, and in ranking them in order of importance, graph (9.4) was deduced. Analysing such graph, it has been found that with the exception of the most preferred motivation (rest and relaxation), there is a general trend towards increased variability in agreement as the popularity of the motivation decreases.



Graph (9.4), Standard deviation for activities motivation.

Relating such results to Maslow's hierarchy of needs, an interesting outcome have been found. Unlike Maslow's triangle, social belongingness has been found to replace safety needs and vice versa. In other words, the first four motivations in the triangle, with reference to the examined sample's recreation participation, are found to start from biological needs, followed by social belongingness, then safety and finally self esteem. [see figure (9.1)].

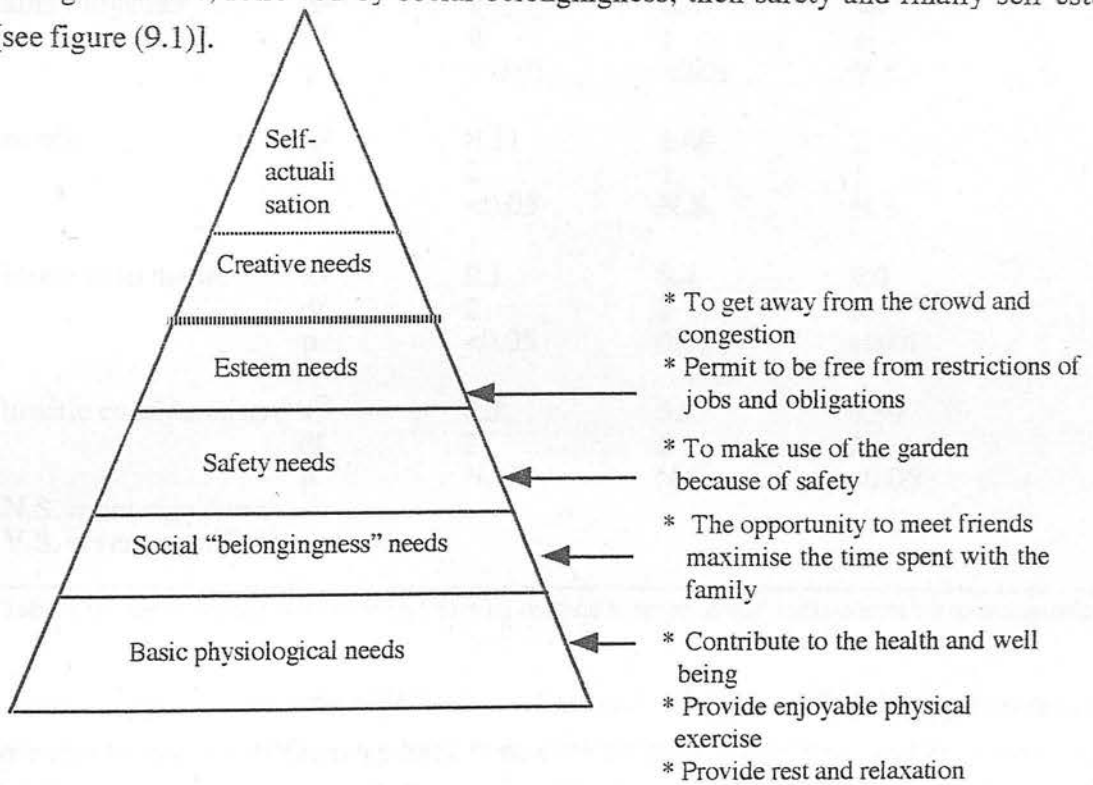


Fig. (9.1), Maslow's triangle with reference to the examined sample's participated recreation activities.

Likewise, a procedure was made to compare such motivations of question (4.12) to Drivers' reasons (part five) in the questionnaire. Results from the correlated matrix, revealed that there were some low correlation between similar questions of Driver questions and the motivation questions. This illustrates the point that has been imprinted in environmental psychology, that is when people make general statements in graduation about things, the responses received can be different than when people make specific

responses about feelings or motivations. It does seem, from a decisional point of view that human beings do respond very strong to context and that their responses and articulations about aspects of behaviour can be quiet different that they are speaking at a very general level than that apart. Moreover, in the questionnaire, respondents were asked to rank the motivation of the actual participated activities in their preferred garden, it ended that these motivations were different from the ones they would like to participate. In other words, the participated activities in the case studies were participated according to motivations that differ from the real motivations which participants would wish to fulfil. This could be because the facilities within the open spaces of the case studies do not encourage participants needs to be fulfilled. Accordingly, they do engage in activities that do not fulfil the actual needs they wish to satisfy.

In relating the most important determinant to participants' characteristics, the followings have been found, [see table (9.6)]:

Socio-economic Characteristics:		Age	Sex	Marital Status
Factors:				
Family together	x^2	25	6.6	46
	df	2	1	1
	p	< 0.01	<0.01	V.S.
Friends	x^2	8.11	1.69	2
	df	2	1	1
	p	<0.05	N.S.	N.S.
Closeness to nature	x^2	9.1	8.4	9.0
	df	2	1	1
	p	<0.05	0.01	<0.01
Climatic considerations	x^2	2.3	5.37	6.39
	df	2	2	2
	p	N. S.	N.S.	<0.05

* N.S. = not significant
V.S. = very significant

Table (9.6) the most four important factors with relation to respondents' socio-economic characteristics.

In terms of age, and dealing with both the first and third factor (family togetherness and closeness to nature), differences have been noticed between children and teenagers group with comparison to the rest. Children are to be less concerned with both determinants, but more concerned with the friends' determinant. Moreover, when relating the friends determinant to the rest of ages' groups, it has been found that the middle stage of age (from 20 to 35) is the less stage concerned with such factor. On the other hand, there has not been any significant differences between age and the environmental factor. Most respondents agreed that it is a strong determinant (specially the older group more than 35 years old). What turned to be interesting that people in the middle group (from 20 to 35

years old) seems to be more concerned with the family determinant than the friends. In terms of sex, it has been found that males are more concerned with the family togetherness and closeness to nature, while with the rest of the factors, no significant differences have been found. Both sexes strongly agreed that the environmental determinants are very important. Finally in terms of marital status, a very significant difference has been found between single respondents and married in relation to family togetherness. Married respondents were found to be more concerned with closeness to nature and environmental aspects. On the other hand, in relating such characteristic to friendship relation, no significant differences have been found, both agreed about the importance of this determinant.

Summary:

The aim of this chapter has been to quantify the fourth determinant; the psycho-physiological. It addresses Maslow's hierarchy of needs with regards to the examined sample's response to the participated recreational activities. A questionnaire of five divisions was formulated to attain the objective. The number of respondents reached 207.

The analysis of both the first and third division, displays respondents' socio-cultural characteristics. Data collected were directed towards the low and low middle class communities. The proportion of male and females respondents were in balance. The majority belonged to both the third and second stage of life-cycle stage. Most of them were of certain level of education, college or institute graduate. Hence, respondents represent an accepted sample.

The third division of the questionnaire is devoted to the evaluation of the facilities made available, the preferred participated activities and frequency of participation within the communities. It has been found that the most preferred activities in the examined communities commences by the social, followed by the physical passive and finally both the active physical and the cognitive. This supports the observation's findings defined earlier in chapter eight. In most communities, respondents requested; tools that support family's social interaction, additional green shaded areas for moderating the harsh environment, and football fields to afford physical activities to take place freely in open spaces of recreation.

The fourth division of the questionnaire is devoted to the case studies; Al Hadeeka Al Dawlia, Al Sayyida Zayinab and Al Azbakyia. The analysis is directed towards; a) evaluation of the maintenance circuit and b) the study of the major participated activities and their relation to Maslow's hierarchy of needs. Respondents' evaluation of the maintenance circuit for both; Al Azbakyia and Al Dawlia garden was seen to be moderate, while it was satisfactory to Al Sayyida Zayinab. Participants hoped for the

provision of facilities that support cognitive activities in Al-Dawlia garden, while in Al Hod Al Marsoud physical activities were called for.

The fourth division of the questionnaire analysis contributes to better understanding of how Maslow's needs operate as recreation motivations factors for the examined sample of Cairenes. The results appear to suggest logical and interesting relationships between motivations and participated activities. Most of all, and unlike Maslow's hierarchy of motivations, the safety needs are categorised at the third level. Social belongingness are found to start from the second level of motivations. Hence, both the biological motivations and social belongingness represent the first two levels in respondents' perception for participation in outdoor recreation. They are followed by the safety needs, while the self esteem occupies the fourth level, [see figure (9.1)]. The social belongingness in terms of both family and friends revealed a very interesting aspect; the examined sample of Cairenes when engaged with friends seem to involve in the active pattern of physical activities more than the passive, while the opposite has been found in their engagement with the family. This was supported by the findings of the fifth division of the questionnaire.

Finally, the fifth division of the questionnaire was devoted to the quantification of the psycho-physiological determinant of recreation for the examined sample; applying the factor analysis technique to the modified table of Driver's pool. Nine factors were found to determine the examined sample's participation in outdoor recreation; relaxation and escaping routine and responsibilities, safety and physical balance, intellectual aestheticism, enjoying watching, family aspects, killing time and avoiding boredom, spatial social behaviour, enjoying nature and meeting new friends. Ranking these factors in order showed that the three most preferred ones refers to; spatial sociable behaviour, nature, family and safety. They are found to be; doing things with my friends, enjoy the green, being a good experience to the family, to be close to nature, being here where things are safe, the children can enjoy their time, enjoying a shady spot, enjoying a sunny spot in winter and family together.

In addition, respondents' comments were emphasised that, spiritual activities were asked to be provided for. In conclusion, facilities in the open spaces examined are preferred to; first of all, encourage social activities to exist in relation to families and specially children, and provision for green shaded areas for environmental improvement. Additional facilities such as picnic facilities, football yards, and nice views and scenes should be provided. Designing playing areas for children, parents' needs should be catered through providing facilities by which parents could converse during watching their children. Accordingly, within open spaces for recreation there should be various settings that fulfil participants different taste of interests.

CHAPTER TEN:
10. CONCLUSION

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10. CONCLUSION

Research survey in the field of recreation has shown that the descriptive "traditional" approach had had more emphasis than the explanatory. Both are essential to the study of recreation since the latter constitutes the behavioural context of recreation. Others have concerned themselves with the physical design aspects of recreation; i.e. the descriptive approach. Researchers in the field have identified themselves with the examination of either of these approaches.

Klausner and Kaplan were more concerned with the descriptive approach. The former dealt with social environment, while the latter examined the socio-cultural characteristics of participants. Moreover, Schreyer and Knopf paid attention to the explanatory approach; the psycho-physiology of recreation. On the other hand, researches by Jan Gehl and by Knopp concentrated on two descriptive aspects; the participated activity and the socio-physical environment. Researchers as London, Crandall and Fitzgibbons investigated three aspects; the socio-cultural characteristics of participants, the participated activities and the psycho-physiology of recreation.

The key feature of this study is that it has not focused on either approaches, but rather consolidates both approaches and their aspects. They were postulated as the four determinants. A multi-dimensional model for dealing with the four determinants was then introduced. By presenting complex relationships among the four determinants, this model is seen to lend support to understanding the inter-relationship of the determinants which in turn provide for comprehensive understanding of recreational experience within a society. Moreover, it allows the user to assess particular experience in terms of man and spatial behaviour.

The importance of this model is in making architects better equipped by the knowledge of not only the behaviour of participants and the settings where such behaviour will take place, but most important the interacting relations between both. Such knowledge should enable designers to accomplish better design for any society.

Throughout the research, two main aspects emerged. First, the types of factors that are embodied within each determinant and second is relating both approaches; the descriptive and explanatory with regards to participants objectives. Furthermore, these two aspects were then applied to the Egyptian context for verifying the model's capability in providing understanding and assessing recreational spatial behaviour.

Accordingly, the research procedure and deductions are, therefore, conducted in the following manner:

10.1 Overview of the Study Process.
10.2 The Synthesis.
10.3 The Augmentation/ Design Framework.
10.4 Design Implications (selected sample in Cairo).
10.5 Landscape Design Guidelines in Open Spaces for Recreation (selected sample in Cairo).
10.6 Future Research.

10.1 Overview of Study Process:

To achieve the aim of the study, it was divided into three main parts. The first part is an introductory approach to culture, environment and behaviour. The theoretical approach of the "traditional" and "current" concepts of recreation is addressed. The examination has lead to the followings:

1. Rejection of applying a common basis for designing for recreation for all societies.
2. Emphasis on integrating the explanatory and the descriptive approach towards recreation spatial behaviour.
3. A model has been deduced for the integration of both approaches. It has been referred to as the "recreation paradigm", since it represents the umbrella that shades the multi variant disciplines reflecting the four determinants defined earlier. The paradigm helps in the understanding of the recreation experience within a society, as it provides comprehension of the psycho-physiological recreation behaviour of participants and the socio-physical environment where the participated activities will take place.

Not only does the paradigm should help in formulating design aspects for new open spaces for recreation use, but also it should be able to be used in the evaluation of the performance of presently active open spaces. Whether through the understanding of the motivations of participants within a society or the deduction of the implications of designed open spaces, the recreation paradigm should be able to provide design guide lines.

The second part of the research has been devoted to the analysis of the determinants of recreation paradigm, where a relation to Cairenes was introduced. The four determinants of the recreation paradigm and their interacting relation were comprehended. It was possible to identify the determinants' encompassed factors. A search is then conducted to find out those methods and techniques that are capable of analysing and quantifying the determinants' factors. This has lead to the followings:

1. Classification of those factors embodied within the four determinants of the recreation paradigm.
2. The use of behaviour settings method as a tool of observation, directed towards the analysis of the descriptive determinants; participants' socio-cultural characteristics, the socio-physical environment and the participated activities.
3. The use of Driver's pool method in the questionnaire as a tool directed towards the analysis of the explanatory determinant; the psycho-physiology of recreation .

The examination of whether the deduced paradigm will fulfil its objectives of understanding and evaluation of the spatial behaviour in open spaces, is undertaken at the third part of the research. Further examination of the deduced design considerations takes place through the introduction of the case study which examines a particular sample[1] in Cairo. Analysis and quantification of the paradigm's determinants are achieved through the application of both behaviour setting survey and a modified version (undertaken by the researcher), for Driver's pool. The aim is to understand and evaluate the sample's spatial recreation behaviour, which will in turn lead to concluding design guide lines for open spaces for recreation in the particular situation. In summary the third part has evolved a number of findings which helped in the comprehension of the determinants most germane in shaping the examined sample's recreation behaviour and how these determinants could have helped in achieving landscape design objectives. Physical guide lines were deduced as a reflection of the design considerations evolved earlier in this part.

10.2 The Synthesis:

The four determinants have been structured, in the objective of integrating the descriptive and explanatory approaches, to formulate the recreation paradigm. These determinants were symbolised as the psycho-physiological determinant for recreation (the explanatory determinant), the socio-cultural characteristics of participants, the socio-physical environment and the behavioural activities participated (the three are the descriptive). Each determinant is studied individually and with relation to the other

[1] It is selected with refernce to the socio-cultural characteristics of participants, interviewers and respondents, as well as the locality and its particular socio-physical environment.

determinants, which has lead to the identification of the component factors. To achieve the objective of integration the factors involved within these determinants were identified so that interrelation between them is traced, which in turn defines the interactions areas, e.g. categories of participated activities and the expected satisfaction.

10.2.1. The first determinant "participants' socio-cultural characteristics". It embodies the following factors: life-cycle stages, social class differences and sex differences. Although participants' socio-cultural characteristics differs in a society, they do hold common needs that should be taken in consideration in landscape design of open spaces for recreation. Social-class, life-cycle stages and sex differences and their impact on participants' recreation behaviour should be taken in consideration.

10.2.2. The second determinant is "the psycho-physiology" of recreation experience. This factor is represented by; motivations, needs and the expected satisfaction. It has been quantified and then related to the participated activities. Accordingly, analysis and quantification of "participants' psycho-physiology" of recreation should be taken in consideration. This lead to the modification of Driver pool method to the effect of considering urban spaces and social bonds.

10.2.3 The third determinant is the socio-physical environment. Its factors concern the social and physical environment. The social refers to forms of social groups; individual, family, friends, or family/friends. The physical environment refers to the natural and man-made. The natural through the climate and topography. The man made through zones, areas and settings of open spaces beside the landscape elements within. The exploration of the factors has demonstrated that a setting represents the nucleus cell which form the smallest open space for recreation. A groups of settings form an area, while a group of areas would form a zone of open space for recreation. These settings include landscape tools and equipment that achieve the expected satisfaction for participants.

10.2.4. The fourth determinant is "the participated activities". They are studied according to their factors consisting of forms, categories and mix. The study has lead to the selection of behaviour setting survey as the tool of analysing the participated activities with relation to the other descriptive activities; the socio-physical environment and participants' socio-cultural characteristics.

Through the study of the previous four determinants, designers for recreation, accordingly, should be able to understand the explanatory and descriptive approach of recreation and bridge the gap between them through design.

10.3 The Augmentation/ Design Frame work:

The deduced "recreation paradigm", in addition to the selected methods, behaviour setting survey, Maslow's motivations and Driver's pool, for analysing the determinants embodied within the paradigm, should integrate the descriptive and explanatory approach. This will, in turn, promote understanding of the specific society which the landscape designer is concerned with. Design consideration have emerged through the exploration of the factors forming the paradigm's determinants. The following design frame work personifies the design consideration concerning recreation spatial behaviour in open spaces.

10.3.1 Open spaces for recreation should be considered in the hierarchical physical forms as, zones, areas and settings. Each of which represents an open space for recreation, depending on the available size of open space. The shape of each setting is largely influenced by the form of the site and designers' vision. In designing or evaluating open spaces, the setting should have the prime emphasis as it represents the nuclear form of the designed open space.

10.3.2 Settings and landscape elements should be arranged and selected according to participants' psycho-physiological needs. Accordingly an analysis and quantification of the determinant should therefore take place. The use of Driver's pool as a method for analysis, will enhance the understanding of preferences that drive participants to engage in recreation.

10.3.3 Moderating both the physical-chemical-ecology in addition to the psychological and socio-cultural quality of the environment is achieved through the use of suitable landscape considering the physical and cultural society context.

10.3.4 The evaluation process, behaviour setting survey, should point out the most preferred activities, which will in turn enable designers of recreation to enrich the setting with facilities which suits the expected recreation activities.

10.3.5 Variation in the socio-cultural characteristics between participants within a specific society should be considered. If space is supposed to serve all stages of life-cycle and social class, a balance in fulfilling their behavioural needs should be attained. On the other hand, if the open space is directed to serve a specific stage of life cycle or social class the specific behaviour needs of participants should be taken in consideration.

10.3.6 The analysis and evaluation process, (behaviour setting survey), should emphasis the dominant type of social group. If individuals are found to domain the

family or family/friend, the "without" should have more attention than the "with" component and vice-versa.

10.3.7 General consideration should be taken into account in selecting the shape of landscape tools; variety between settings is by far preferred to avoid boredom, while unity within settings is preferred to achieve harmony.

10.4 Design Implications:

The application of the deduced design frame work to the selected sample in Cairo, has demonstrated that the design process for recreation in open spaces must evolve from the study of the hierarchical environmental settings within which spatial recreation behaviour manifests itself. The application of this process in the context of the particular social examined sample has lead to the followings:

10.4.1 Settings, within open spaces for recreation in Cairo, should include the four categories of behaviour activities. The most dominant should be the social and passive physical followed by active physical then cognitive and least are settings' related activities. The latter depend on the affordance of every setting.

10.4.2 The essential notions that drive Cairenes to participate were found to be; family togetherness, meeting friends, in addition to children enjoy their time, to be close to nature and escape the uncomforted climate whether in winter or in summer. Children's needs, accordingly, have the priority in most settings if not all. Children in Cairenes' life are the main reason families' participation in outdoor space. In designing these settings, parents needs should be taken in consideration. Hence, in designing the settings, the needs of both children and parents are to be considered.

10.4.3 Groups of families and friends should have the priority than individuals. This should be through the design of settings in addition to the location of landscape tools, with relation to edges, entrances and mobile settings. The "with" component should have more attention than the "without" in the arrangement and shape of landscape tools.

10.4.4. Moreover, these settings should include a wide span of life-cycle stages. The majority should be oriented towards the second and third life-cycle stages followed by the first and least of all the fourth stage. These settings will attract interests of both sexes.

The above deduced design implications reflect the considerations evolved from the paradigm determinants in the examined sample. Hence, they should not be considered as general physical design implications for open spaces in Cairo, but for the specific period of observation, space, participants and location examined. They provide for a better integration between the descriptive determinants and the explanatory ones in the selected specific situation.

10.5 Landscape Design Guidelines in Open Spaces for Recreation (for the examined sample):

The analysis and evaluation of the case study that evolved in deducing the above design implications has in turn lead to concluding the following design guidelines for open spaces with reference to the examined sample at the particular period of observation, which is following presented in its hierarchical frame work.

10.5.1. The zone, which covers the whole space of the garden, is subdivided into a number of areas. It should embody a larger provide of facilities in addition to the ones included in both the areas and settings. The zone's facilities should include all categories of participated activities. For example, a restaurant will be included for the social and passive activities. An open theatre, a small multi-purpose hall and a mini zoo which includes caged creatures, i.e. birds, could fulfil the cognitive activities. The active physical activities should be incorporated in a green yard that could be used for different activities through time. A space for more advanced games as crazy cars and other entertainment games to attract children and teenagers is favoured. An artificial physical element in the zone should be included for settings' related activities, e.g. an artificial pond for pedalling.

Depending on the scale of the zone, the route which combines the areas of the settings should embody attractive elements, i.e. to make it mobile. Access in the routes should be facilitated for allowing social exchange between participants. This will lead to the creation of nodes, which in turn provide for social gathering which is by far more preferred than the scattered benches in the route. In addition to the previous elements, others should be provided at any scale of the garden as toilets and water taps.

10.5. 2 The area encompasses a number of settings should also include the four categories of activities. Beside the facilities and organisation of each zone, each area should be served by diverse forms of facilities. A cafeteria and picnic facilities at every area should exist for social and physical passive activities. A

children playing area provided with advanced playing tools in addition to a green area for football and free ball where active physical activities could be participated should be provided in the area. The area should include a small cultural centre for the participation of cognitive activities, i.e. art craft, computer, library, and other cultural activities. In the case of the existence of more than one area in the garden, it is advisable to spread these types of cognitive activities, to avoid boredom. The location depends on the specific needs of the cognitive activity.

10.5.3. The setting should first of all fulfil both; families and children's needs. The existence of both will accordingly limit the prohibited behaviour noticed in the case study. Settings should include a playing tool for children to use in addition to a small green area for free ball where the active physical activities could be practised. A small book shop for cognitive activities should be included in the setting. The existence of all the above facilities will attract children's interests and so parents' to participate in the setting. The passive physical and social related activities should be achieved through the selection, arrangement and shape of the landscape tools as follows.

10.5.3.1 Avoid the strict linear arrangement of sitting tools, specially beside entrances and mobile settings. Clusters, multi jogs and right angled seats are more preferred as they could support social exchange between and within groups to take place.

10.5.3.2 Canopy trees should be planted with strong relation to sitting tools, especially where social exchange is expected to take place most, i.e. at edges and entrances.

10.5.3.3 Prevention of the design of enclosed or private settings within open spaces for recreation, through the use of shrubs and flower beds, as spatial enclosures, should encourage the without component at the same time as defining the setting with no obstruction.

10.5.3.4 Increasing the use of both natural elements; trees and water will not only moderate the harsh climate but also will improve the quality of the environment. Canopy trees should be widely used. Through summer, leaves create shade when the radiation strikes the ground, while in winter the leafless trees let the warmth through.

10.5.3.5 To prevent the noticed "out-of-order" or "off" fountains, water objects are preferred to be unreachable though viewed. This should moderate the climate beside fulfil the visual and psychological effect of water on participants.

10.5.3.6. Safety, as the third psycho-physiological factor emphasised in the case study, should be fulfilled through the preference of soft materials and continuous maintenance.

Although each setting shares a number of characteristics with other settings, variety should be attained to prevent boredom and similarity of settings. This variety will be achieved through the selection of landscape tools and equipment between settings, while unity is preferred within settings to achieve harmony. Beside this role, landscape tools and equipment play a major role in enhancing or preventing activities to exist and so they affect people's participation.

10.6 Future Research:

The four determinants of the paradigm have been explored through the study with the objective of understanding and evaluating spatial recreation behaviour in open spaces. The factors encompassed in each of the determinants, however, could be further explored individually and in details in the context of its relation with other factors, whether within its components or between determinants. Further study of time and location factors involved in the design of recreation open spaces, could be further identified. In addition, greater emphasis must be placed on defining the physical scale of the environmental settings required for recreation behaviour to take place.

The present study contributes to a better general understanding of how the four basic needs of Maslow's hierarchy has been evolved and changed in rank for the selected sample. Future research should attempt to widen the coverage in terms of both the particular and general context of the diverse socio-psychological characteristics of Cairenes. Moreover the research has extended the 33 scale of Driver's pool of motivations into 51 scale, which could be further modified and extended if applied to a different society with a different culture in future research.

In the context of the case study, the selection of the three locations and sample does not in itself provide for concluding remarks regarding physical design guide lines for open spaces for recreation in general, but for the particular location for the sample. Further study for a particular classification device for open spaces that would be followed by application for the paradigm will provide specific guide lines for the specific types. Moreover, a continuous hefty and chronic effort is required to understand the relationships among observed behaviour in the environmental settings, at other times than that utilised in the selected sample. For example, feasts and holidays require a full behaviour settings observation, as well as, seasonal time span since participants' behaviour in outdoor spaces for recreation and their use of the environmental settings are

expected to be different. To cover the variation and differences in the zone time of behaviour, as suggested by Barker, a huge and tremendous task is required. This in turn needs a numerous well trained observers in the specific field which is not a one-man's job. The outcomes of such full setting behaviour observation will equip landscape designers and planners with the suitable tools for design in the specific society. Again the research was not expected to cover such variety of time/space and social context of Cairenes open spaces in general, since it was not its objective; as pointed out in the introduction and that of the third part.

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APPENDIX

APPENDIX (A)

OBSERVATION FORM:

Area: sub area:

Setting number:

1 - Time: 1.1 year :_____ 1.2 month: _____ 1.3 hour: _____
special events: _____

2 - Participants: 2.1 sex: ☐ male ☐ female

(socio-cultural) 2.2 age: ☐ under 5 ☐ 5-13 ☐ 13-20 ☐ 21-45 ☐ 45- 65 ☐ over 65

3 - The Environment: (Socio-physical)

3.1 Social: 3.1.1 Number of groups in settings: _____

3.1.2 Types of groups: 3.1.2.1 ☐ friend.

3.1.2.2 ☐ family: ☐ single ☐ nuclear ☐ extended

3.1.2.3 ☐ family/friend.

☐ number of children in group.

3.1.3 Type of interaction: ☐ one way ☐ two ways. ☐ both.

3.2 Physical: 3.2.1 Climate: ☐ sunny ☐ hot ☐ wind ☐ cloudy ☐ other _____

3.2.2 physical features:

Horizontal: ☐ sloped ☐ stepped ☐ levelled ☐ hard ☐ soft ☐ others

Vertical: ☐ natural _____

☐ man made _____

Tools and equipment:

☐ natural _____

☐ man made _____

3.3 The interaction between social and physical:

3.3.1 The participant is in ☐ sun ☐ shelter ☐ tree's shade

3.3.2 The location of individual or group: ☐ edge ☐ centre ☐ other

4 - The Behavioural Activities:

4.1 Form: ☐ recluse ☐ intrinsic ☐ group ☐ mass

4.2 categories: ☐ physical passive ☐ physical active ☐ social ☐ setting's related ☐ cognitive ☐ job's related.

4.3 package: 4.3.1_____ 4.3.2 _____ 4.3.3 _____
4.3.4 _____ 4.3.5 _____ 4.3.6 _____

4.4 Behaviour settings synomorphy:

4.4.1 Tools: sitting: ☐ with. ☐ without.
learning: ☐ with. ☐ without.
playing: ☐ with. ☐ without.

4.4.2 Equipment:
authentic: ☐ with. ☐ without.
ground: ☐ with. ☐ without.
functional: ☐ with. ☐ without.

5 - Any comments added by observer to explain the settings and interactions within:

APPENDIX (B)

QUESTIONNAIRE

Survey of visitors to the Hadaek

1. DIVISION ONE: Personal details

1.1 Age : years.

1.2 Nationality:

1.3 Sex: ☐ Male. ☐ Female.

1.4 Marital status: ☐ Single. ☐ Engaged ☐ Married. ☐ Widowed or divorced.

1.5 Age, sexes and activities practised by the family members:

Age	Sex/no		Type of activity
	Male	Female	
Up to 5 years.			
From 6 to 12 years.			
From 13 to 20 years.			
From 21 to 44 years.			
From 45 to 64 years.			
More than 65 years.			
Total for each sex.			
Total for the household.			

1.6 Education status:

☐ Cannot read or write. ☐ Cannot write but can read.

☐ Hold a primary certificate. ☐ Hold an intermediate certificate.

☐ Hold a secondary certificate. ☐ Hold a college certificate.

☐ Higher than college.

1.7 Occupation:

☐ Self employed. ☐ Employed. ☐ Unemployed.

☐ Retired. ☐ Student. ☐ Housewife.

☐ pupil.

1.8 How do you reach the places you visit for recreation?

☐ With your private car. ☐ With a friend or relative. ☐ With a taxi.

☐ With public bus. ☐ Walking.

1.9 Number of car used for personal and family transportation:

☐ No car. ☐ One car. ☐ Two cars.

☐ Three cars. ☐ More than three cars.

2. DIVISION TWO: **Locality and neighbourhood:**

2.1 How long have you been in Cairo:

2.2 Which neighbourhood you live in now:

2.4 Residence type:

- ☐ Lesser than five story house.
- ☐ Five story house.
- ☐ From five to twenty.
- ☐ More than Twenty.
- ☐ Other, please specify :_____
- ☐ More than three bed rooms.
- ☐ Three bed rooms.
- ☐ Two bed rooms.
- ☐ One bed room.

2.4 Residence ownership:

- ☐ Own.
- ☐ Government provided.
- ☐ Rented.
- ☐ Other, please specify _____

2.5 Your own evaluation of your neighbourhood:

- ☐ Good appearance.
- ☐ Acceptable appearance.
- ☐ Bad appearance.
- ☐ Do not care.
- ☐ Other, please specify _____

2.6 How far is the nearest open space where you and your family spend some time recreation such as walking, playing, sitting....?

- ☐ Less than 100 metre.
- ☐ From 300 metre to 500 metre.
- ☐ More than 1 km.
- ☐ From 100 metre to 300 metre.
- ☐ From 1/2 km. to 1 km.

2.7 From your point of view what is the advantages of the existing open spaces in your neighbourhood? (please tick one box)

- ☐ Do not care.
- ☐ Good for families.
- ☐ Good for sitting out.
- ☐ Other, please specify _____
- ☐ No advantages at all.
- ☐ Good for children.
- ☐ Pleasant to look at.

2.8 Name of the nearest open space to your home:

2.9 How many times did your family visit the same open space (as in 1.9) during the last two weeks?

- ☐ Not at all.
- ☐ Once.
- ☐ Twice.
- ☐ Three times.
- ☐ more than three times.

2.10 How many times did your family go outside for other recreation areas during the last two weeks?

☐ Not at all. ☐ Once. ☐ Twice.
☐ Three times. ☐ More than three times.

2.11 Which place do you prefer to visit for recreation, either alone or with your friends?

2.12 Which place do you prefer to visit with your family?

2.13 What time do you prefer to visit for recreation?

☐ All day. ☐ Morning. ☐ Afternoon. ☐ Evening.

3. DIVISION THREE: **Activities and services:**

3.1 It is believed that families tend not to use the small open spaces inside the neighbourhood (*Hara*)

agree 0|__|__|__|__|__|__|__|__|10 disagree

3.2 There is a lack of social contacts among the residents of my neighbourhood.

agree 0|__|__|__|__|__|__|__|__|10 disagree

3.3 What is your opinion about the outdoor facilities for play and recreation such as parks, children play areas .. etc.. in the locality?

Sufficiency:	not sufficient	0|__|__|__|__|__|__|__|__|10	sufficient
Crowd:	crowded	0|__|__|__|__|__|__|__|__|10	not crowded
Noise:	noisy	0|__|__|__|__|__|__|__|__| 10	not noisy
Safe:	unsafe	0|__|__|__|__|__|__|__|__| 10	safe
Distance:	far	0|__|__|__|__|__|__|__|__| 10	near

3.4 What kind of outdoor facilities would be most needed in your neighbourhood? (maximum of three)

☐ New open spaces designed for families. ☐ Children playgrounds.
☐ Green and shaded areas. ☐ Pedestrians and routs.
☐ Football playing fields and kick about. ☐ Public toilets.
☐ Parking areas near existing outdoor recreation facilities.
☐ Other, please specify _____

3.5 Here is a list of outdoor places young children usually play in, which one of those places best described where your children age 6-12 years most often play?

☐ Neighbourhood yard. ☐ Front door. ☐ Street or sidewalk.
☐ Vacant park. ☐ Community park. ☐ Private club.
☐ Elsewhere, please specify _____

3.6 When you go to recreate, which major activity do you practice (maximum of three):

☐ Sitting and talking. ☐ Watching nice views.

☐ Accompany children to play. ☐ Playing football.

☐ Picnic. ☐ practice some exercise.

☐ Other, please specify _____

3.7 When you have time to go exactly where you please, what is your favourite place?

3.8 What are your favourite things to do in these place?

4. DIVISION FOUR: Opinions and views related to the case studies:

4.1 Have you visited one of the following ' hadaek' : Hadeekat al Azbakyia, Al Hadeeka Al Dawlia, Hadeekat El Sayyida-Zayinab.

☐ Yes. ☐ No. If the answer is No, please go to question (4.1).

4.2 How many times did you visit them all or one of them last month?

☐ Non at all. ☐ Once. ☐ Twice.

☐ Three times. ☐ Four times or more.

4.3 Which one of the three hadaek you prefer and why?

4.4 Which part in this hadeeka is your favourite?

4.5 How do you feel about the landscape of your favourite part?

Not at all attractive 0|__|__|__|__|__|__|__|__|__|__| 10 very attractive

4.6 In which area of this hadeeka you feel the landscape is more attractive?

4.7 In general what do you like best about this hadeeka?

4.8 Is there any change in this hadeeka you would suggest to make it better?

☐ Yes ☐ No

4.9 What sort of change?

4.10 How long do you usually stay in this Hadeeka?

☐ 1-2 hours ☐ 2-3 hours ☐ 4-5 hours ☐ more than 5 hours

4.11 Which major activity do you usually practice there?

☐ Sitting and talking. ☐ Reading.

☐ Waiting for somebody. ☐ Riding the mini train (al taftaf).

☐ Watching the performance. ☐ Watching others.

☐ Meeting friends and families.

☐ Watching the children and help them to play.

☐ Doing some exercise as running, walking, playing ..etc. .

☐ Other, please specify :_____

4.12 After reading the following seven statements how would you rate each of as a motivation or reason for your participation in outdoor recreation:

4.12.1 These activities attribute to my health and well being.
disagree 0|__|__|__|__|__|__|__|__|__| 10 agree

4.12.2 These activities provide me with enjoyable physical exercise.
disagree 0|__|__|__|__|__|__|__|__|__| 10 agree

4.12.3 These activities provide rest and relaxation.
disagree 0|__|__|__|__|__|__|__|__|__| 10 agree

4.12.4 These activities allow me to get away from the crowds and congestion of the city.
disagree 0|__|__|__|__|__|__|__|__|__| 10 agree

4.12.5 these activities give me the opportunity to meet and associate with friends.
disagree 0|__|__|__|__|__|__|__|__|__| 10 agree

4.12.6 These activities permit me to be free of the restrictions of jobs and social obligations.
disagree 0|__|__|__|__|__|__|__|__|__| 10 agree

4.12.7 These activities enable me to make use of the public lands in terms of safety.
disagree 0|__|__|__|__|__|__|__|__|__| 10 agree

4.12.8 These activities enable me to make the maximum use of my leisure time and spend it with my family.
disagree 0|__|__|__|__|__|__|__|__|__| 10 agree

4.13 What activities do you think these places most need?

4.14 How satisfied are you with these aspects of the hadeeka?

Upkeep and maintenance
not sufficient 0|__|__|__|__|__|__|__|__|__|10 sufficient

Adequacy of facilities
not sufficient 0|__|__|__|__|__|__|__|__|__|10 sufficient

Staff courteousness and helpfulness
not sufficient 0|__|__|__|__|__|__|__|__|__|10 sufficient

Appearance of the hadeeka in general
not sufficient 0|__|__|__|__|__|__|__|__|__|10 sufficient

Safety
not sufficient 0|__|__|__|__|__|__|__|__|__|10 sufficient

Overall Satisfaction
not sufficient 0|__|__|__|__|__|__|__|__|__|10 sufficient

5. DIVISION FIVE: The psycho-physiological determinant of participation:

5. This is a short list of questions about your experience in the Hadeeka. For each item would you please circle one response that best reflect your feelings.

Most Important				Not at all important	
5	4	3	2	1	The children can enjoy their time
5	4	3	2	1	More space for my kids
5	4	3	2	1	My kids could play with other kids
5	4	3	2	1	Being a good experience to the family
5	4	3	2	1	To help bring the family together
5	4	3	2	1	Doing things with my friends
5	4	3	2	1	Talk to new people
5	4	3	2	1	To build new friendship
5	4	3	2	1	Something exciting is always happening
5	4	3	2	1	Observing other people enjoying themselves
5	4	3	2	1	Seeing new faces
5	4	3	2	1	To relax physically
5	4	3	2	1	So my mind can slow down for a while
5	4	3	2	1	Experiencing the peace and calm
5	4	3	2	1	Getting away form crowded situation
5	4	3	2	1	Change from my daily routine
5	4	3	2	1	To get away from the responsibilities
5	4	3	2	1	Enjoy the 'green'.
5	4	3	2	1	To be close to nature
5	4	3	2	1	For the exercise
5	4	3	2	1	To help keep me in shape.
5	4	3	2	1	To keep me busy
5	4	3	2	1	To avoid boredom
5	4	3	2	1	To use my mind
5	4	3	2	1	To think about my self and reflecting
5	4	3	2	1	Just being in an open space
5	4	3	2	1	Being alone
5	4	3	2	1	Enjoying a sunny spot in winter
5	4	3	2	1	Getting away from the heat of the summer
5	4	3	2	1	Enjoying a shady spot
5	4	3	2	1	Being here were things would be fairly safe

THANK YOU VERY MUCH FOR COMPLETING THE QUESTIONNAIRE. I HOPE IT WAS OF ANY USE TO YOU AS IT IS TO ME. IF THERE ARE THINGS WHICH YOU THINK ARE IMPORTANT AND WERE NOT COVERED, PLEASE USE THE FOLLOWING PAGE TO WRITE THEM. I AM SO GRATEFUL.

APPENDIX (C)

THE SUM OF MOTIVATIONS ACCORDING TO DRIVER'S POOL AND RESEARCH RESULTS

1. To get away from civilisation for a while
2. For the exercise
3. To help keep me in shape
4. To be creative
5. To relax physically
6. So my mind can slow down for a while
7. So I could do things with my companions
8. To get away from other people
9. To talk to new and varied people
10. To be with people of the opposite sex
11. To meet people of the opposite sex
12. To be away from the family for a while
13. To show others I could do it
14. So others would think highly of me for doing it
15. To have control over others
16. To be in a position of authority
17. To help others
18. For the excitement
19. Because of the risks involved
20. Seeing the results of your efforts
21. Using a variety of skills and talents.
22. To develop my skills and ability
23. Because of the competition
24. To learn what I am capable of
25. To think about my personal values
26. Experiencing the peace and calm
27. Getting away from crowded situation
28. Change from my daily routine
29. To get away from the responsibilities
30. Enjoying a sunny spot in winter
31. Getting away from the heat of the summer
32. Enjoying a shady spot

33. Being here were things would be fairly safe
34. To use my mind
35. To think about my self and reflecting
36. Being alone
37. Something exciting is always happening
38. Observing other people enjoying themselves
39. Seeing new faces
40. The children can enjoy their time
41. More space for my kids
42. Being a good experience to the family
43. To keep me busy
44. To avoid boredom
45. To help bring the family together
46. Doing things with my friends
47. Just being in an open space
48. Enjoy the 'green'.
49. To be close to nature
50. Talk to new people
51. To build new friendship

الفصل العاشر والأخير : الخلاصة Conclusion

ويتناول خلاصة ونتائج ما ينتهى إليه البحث . وهى نتائج إرشادية عامة ، وأخرى خاصة بعينة الدراسة الميدانية .

النتائج العامه يتم التوصل إلى منهج متكامل يربط بين المدخلين الوصفى والتفسيرى ، يقوم أساساً على تقييم وقياس عناصر المحددات بهدف تفهم ووضع المفاهيم التصميمية لأفضل تنسيق للمواقع Landscape Elements ، بالفراغات المفتوحة للترفية ،بما يتلاءم وأولويات إحتياجات الأفراد فى نطاق متكامل مادى ومعنوى . هذا بالإضافة لتحديد كيفية وأساليب تقييم المحددات المؤثرة على المنهاج الترفيهى والعناصر والمؤثرات المكونة لهذه المحددات .

أما بالنسبة للنتائج الإرشادية الخاصة بعينة البحث فتؤدى الدراسة الميدانية إلى التوصل لتحديد معايير تصميمية إرشادية لتنسيق المناطق التى تم دراستها من عينه البحث والتى تؤدى لتحقيق التكامل بين المدخلين معاً فى إطار تصميمى موحد يربط بين عمليات التصميم والتقييم المستمر لها فى تنسيق المواقع المفتوحة بغرض الترفيه .

وتم التوصل إلى طريقة ملائمة لقياس وربطالأنشطة الترفيهية بالمحددات الوصفية الأخرى وهى : الخصائص الإجتماعية / الثقافية للأفراد ، البيئة الإجتماعية / المادية ، وذلك بإستخدام نظرية Behaviour Setting "لباركر" .

الجزء الثالث : التطبيق والتحليل Application and Analysis

يهدف الجزء الثالث والأخير من البحث إلى إختبار مدى فاعلية طرق القياس فى تقييم محددات النموذج الترفيهى بغرض فهم وتقييم السلوك الترفيهى الفراغى للأفراد فى الأماكن المفتوحة مما يؤدى إلى تصميم تلك الأماكن بما يتلاءم مع إحتياجات الأفراد الترفيهية فى نطاق متكامل مادى ومعنوى ويغطى هذا الجزء الفصول الأربعة التالية .

الفصل السابع : المدخل المنهجى

Procedures of Observation and Questionnaire Survey

يتوجه هذا الفصل نحو توضيح الطرق المستخدمة فى جمع وتحليل المعلومات والخطوات المتخذة فى هذا المجال وهما طريقتان .

الطريقة الأولى تهدف إلى قياس المحددات الوصفية للنموذج الترفيهى عن طريق ملاحظة ومتابعة تلك المحددات وتقييمها بإستخدام Behaviour Setting Survey . أما الطريقة الثانية فتتم من خلال إستبيان للرأى بإستخدام معدل Drivers' Pool لقياس وتقييم المحدد التفسيرى وعناصره .

الفصل الثامن : قياس وتقييم المحددات الوصفية

Application of the Behaviour Setting Observation

يمثل هذا الفصل الجزء التطبيقى لتقييم المحددات الوصفية وهى الخصائص الإجتماعية / الثقافية للأفراد ، البيئة الإجتماعية / المادية ، والأنشطة الترفيهية الممارسة ، بمراقبة وملاحظة كل مكان فراغى Setting فى الأماكن المفتوحة من عينة البحث عن طريق إستخدام Behaviour Setting Survey .كما يتم تجميع المعلومات الخاصة بالعناصر لكل محدد للوصول للأولويات . وبالتالى قياس مدى أهمية وتقييم كل عنصر من عناصر المحددات وعلاقته بالعناصر بالآخرى .

الفصل التاسع : قياس المحدد التفسيرى

Questionnaire Analysis and Findings

من خلال إدخال المعلومات المستخلصة من إستطلاع الرأى لعينة البحث بمقياس "Drivers' Pool المعدل"على برنامج تحليلى يتم الوصول إلى أولويات عناصر المحدد التفسيرى (الخصائص النفسية / السيكولوچية) بالنسبة لعينة البحث .

الفصل الثالث : الخصائص الإجتماعية / الثقافية للأفراد

Participants' Socio-culture Characteristics

من خلال دراسة وإستكشاف العوامل والمتغيرات المكونة للخصائص الإجتماعية للأفراد والمؤثرة على سلوكهم الترفيهي نجد أنها تنحصر فى العوامل العمرية والأسرية ، الطبقات الإجتماعية ، إسلوب المعيشة والإختلاف الجنسى بين الأفراد . كما تمت دراسة العلاقات المتبادلة بين هذه العوامل الإجنماعية / الثقافية مع محاولة رؤية تلك العوامل من خلال نظره محلية مرتبطة بمفهوم الشخصية المصرية .

الفصل الرابع : الأسباب النفسية / الفسيولوجية للترفية

The Psycho-physiology of Recreation

يمثل المحدد الثانى فى النموذج الترفيهى المدخل التفسيرى لسلوك الأفراد والذى يبحث فى ماهية أو المسببات فى ممارسة الأفراد للأنشطة الترفيهية فى الأماكن المفتوحة . ويتناول الفصل الرابع العوامل المؤثرة والمكونة لهذا المحدد بالدراسة والتى يمكن تحديدها فى الإحتياجات الإنسانية للترفية (needs) ، الحافز (motivations) على السلوك الترفيهى وأخيراً الإرضاء (satisfaction) المتوقع من الممارسة الترفيهية .

وبدراسة الإختلافات بين هذه العوامل يتم إختيار أنسب طريقة لتقييم وقياس الأسباب النفسية / الفسيولوجية للترفية مع تعديلها بما يتناسب لاحقاً مع عينة البحث فى مجتمع القاهرة .

الفصل الخامس : البيئة الإجتماعية / المادية The Socio-physical Environment

يتم دراسة كل من البيئة الإجتماعية والمادية وعلاقة كل منها بالأخرى . فدراسة البيئة الإجتماعية تتم من خلال طرق وأشكال تجمعات الأفراد وأنواعها . أما البيئة المادية فتحتوى على المناخ ، الطبوغرافيا والمكونات الطبيعية والصناعية فى المنطقة . هذا بالإضافة إلى تحليل الأماكن المفتوحة للترفية من خلال التدرج الوظيفى والمادى من حيث المنطقة Zone ، المساحة Area ، والمكان الفراغى Setting . كما تتم دراسة العلاقة الإجتماعية / المادية للبيئة عن طريق أدوات تنسيق المواقع Landscape Tools وطرق توزيعها فى الأماكن المفتوحة بما يتلاءم مع أشكال وطرق تجمعات الأفراد للترفية فى هذه الأماكن .

الفصل السادس : الأنشطة الترفيهية الممارسة فى الأماكن المفتوح

Participated Recreaction Activities

بعد دراسة النظريات والأبحاث التى تناولت تصنيف الأنشطة الترفيهية يتم الأخذ بالتصنيف التالى :

من حيث الشكل From (فردى – مزدوج – مجموعات – تجمعات)

من حيث النوعية Category (إجتماعى – ثقافى – بدنى – مرتبط بالبيئة)

من حيث الأنماط Pattern (نشط – غير نشط)

من حيث Mix and Package (إختلاط الأنشطة فى زمن المساحة)

الفصل الأول : السلوك الترفيهى Recreational Behaviour

يتناول الفصل الأول من البحث أهمية الترفية كسلوك إنسانى مع التركيز على إختلاف هذا السلوك بين المجتمعات المختلفة . وبالتالى أهمية أختلاف مداخل التصميم ومؤثراته بين مجتمع وآخر . ومن ثم فإن هذا الفصل يناقش المؤثرات الثلاث الأساسية للمجتمع وهى : الثقافة Culture ، البيئة Environment ، والسلوك الإنسانى Human Behaviour ، والعلاقات المتبادلة بينهم .

الفصل الثانى : خصائص الترفية Recreational Characteristics

ينقسم هذا الفصل إلى جزئين رئيسيين . الأول يمثل مدخلاً عاماً للبحث يتم فية تحديد التعريفات الأساسية لكل من الترفية والإستمتاع Recreation and Leisure مع توضيح الإختلافات بينهما . والثانى يمثل مراجعة نظرية Letriture Review بهدف الوصول إلى الخصائص الأساسية والمكونة للسلوك الترفيهى والتى تشمل بالتالى المدخلين الوصفى والتفسيرى معاً . وقد تم حصر تلك العوامل فى أربع محددات Determinants أساسية :

١- الخصائص الإجتماعية / الثقافية للأفراد Socio-cultural Charateristics

٢- الأنشطة الترفيهية الممارسة Participated Recreartion Activities

٣- البيئة الإجتماعية / المادية Socio-physical Environment

٤- الأسباب النفسية / الفسيولوچية للسلوك الترفيهى Psycho-physiological Determinaint

وبمراجعة الدراسات والأبحاث السابقة فى هذا المجال تتضح أهمية دراسة وتحديد المؤثرات المتداخلة بين الأربع محددات السابقة فى هيكل واحد متكامل يتم التنوية عنه فى البحث"بنموذج الترفية" "Recreation Paradigm" .

الجزء الثانى : النموذج الترفيهى Recreation Paradigm

ويمثل هذا الجزء مدخلاً إستكشافياً Exploration لما يشتمل عليه كل محدد "determinant" من مؤثرات ومكونات بالإضافة إلى التعرف على العلاقات المتبادلة بينهم . ويهدف هذا الجزء إلى الوصول لذلك الهيكل المتكامل للسلوك الترفيهى الفراغى "Spatial Recreation behaviour" للأفراد فى الأماكن المفتوحة والأساليب المناسبة لتقييم وتحديد كفاءة المحددات . ويعطى الجزء الثانى الأربعة فصول التالية ، ويتناول كل فصل دراسة أحد المحددات .

وتفسير دوافع وأسباب السلوك الإنسانى كأساس لتخطيط وتصميم الأماكن الترفيهية . وهذا الإتجاه الأخير يمثل المدخل التفسيرى Explanatory Approach .

ومن هنا تتأكد الحاجة إلى الأخذ بكلا المدخلين – الوصفى والتفسيرى – كأساس لتخطيط وتصميم الأماكن المفتوحة للأغراض الترفيهية فى المجتمع بما يتلاءم ويلبى الإحتياجات الإنسانية لأفراده ، حيث تتحدد المشكله فى عجز أى من المداخل السابقة منفرداً فى إيجاد الحل التصميمى الملائم للترفية .

أهداف البحث

للبحث هدفين رئيسيين :

الهـدف الأول : إيجاد هيكل عام متكامل للعناصر والمؤثرات المطلوبة لتخطيط وتصميم الأماكن المفتوحة مما يساعد فى عملية فهم وتقييم مثل هذه الأماكن وتوظيفها التوظيف الأمثل الذى يتلاءم ويلبى إحتياجات الأفراد .

الهدف الثانى : الوصول لأنسب الطرق القياسية لتقييم عناصر الهيكل وإختيار قدرتها التحليلية عن طريق بحث ميدانى لعينة مختارة من مجتمع القاهرة .

خطة البحث :

أنقسم البحث إلى ثلاثة أجزاء رئيسية :

الجزء الأول : المسلمات والفرضيات Postulations

الجزء الثانى : النموذج الترفيهى Recreation Paradigm

الجزء الثالث : التطبيق والتحليل Application and Analysis

وهذه الأجزاء الثلاثة تم تناولها فى عشرة فصول وفقا للتنظيم التالى :

الجزء الأول : المسلمات والفرضيات

يمثل الجزء الأول الدراسات النظرية للمداخل البحثية المختلفة فى نطاق الترفية وذلك بهدف التعرف على المكونات الأساسية للعناصر المؤثرة علية ، وذلك بما يشمل المدخلين الوصفى والتفسيرى . ويتكون هذا الجزء من فصلين .

تنسيق المواقع كمجال تخطيطى لتحقيق الأغراض الترفيهية

المدخل الفسيولوجى / النفسى لتصميم الأماكن المفتوحة

مقدمة

فى عالمنا الحديث المتغير والذى يتسم بالصراعات والأضطرابات والمشاكل الإقتصادية والإجتماعية ، زادت حاجة الأفراد للترفية كوسيلة للتخفيف من حدة هذه الضغوط ، وإشباع إحتياجاتهم النفسية والتعبير عن أنفسهم وتحقيق الإتزان النفسى . ومن ثم أصبح النشاط الترفيهى يمثل عنصراً هاماً فى التخطيط والتصميم للمجتمعات الحضرية الحديثة .

وتتأكد أهمية الترفية – من وجهة نظر البحث – فى أنه مصدر هام لتحقيق الصحة البدنية والنفسية والعقلية لكل من المجتمع والأفراد . فمما لا شك فيه أن أى تقصير فى التخطيط والتصميم لهذا النشاط الحيوى ، يعوق تقدم وتطور المجتمع ، بل قد يؤثر سلباً ويؤدى إلى تدهوره البطئ .

وقد كان الإتجاه فى تخطيط وتصميم الأماكن الترفيهية – خلال القرن الماضى – يركز على الأبعاد والنواحى المادية فى البيئة المحيطة دون الأهتمام بالجانب النفسى والسلوكى للأفراد المشاركين فى الأنشطة الترفيهية تلبية لإحتياجاتهم النفسية والإجتماعية .

وقد أدى ذلك إلى ظهور إتجاه آخر ركز على الأنشطة الترفيهية نفسها ، وهذا الإتجاه الجديد أضاف عناصر أساسية وهى تحديد من الذى يشارك فى هذه الأنشطة ؟ وما هى هذه الأنشطة ؟ ومتى وأين يتم ممارستها ؟ إلا أنه لم يتعرض لعناصر أساسية أخرى . وعلى سبيل المثال : لماذا يشارك الفرد فى هذا النشاط الترفيهى ؟ وما هى دوافعة لهذه المشاركة ؟ وكيف نشبع هذه الدوافع ، ونلبى إحتياجات الفرد بصورة أفضل ؟

ومن هنا مهد الإتجاهان السابقان لظهور إتجاه ثالث ، وهو الإتجاه السلوكى والذى يقوم على علم النفس ، وعلم الإجتماع بالإضافة للعلوم الطبيعية والذى أهتم بالدوافع الإنسانية ودراسة وتحليل السلوك الترفيهى للأفراد ، والتركيز على فهم الإحتياجات الإنسانية كأساس للتخطط والتصميم للأنشطة الترفيهية .

تحديد المشكلة

يتضح من العرض السابق أن هناك ثلاث إتجاهات لتصميم الأماكن الترفيهية . الإتجاه الأول يركز على البعد المادى ، فى حين يركز الإتجاه الثانى على الأنشطة الترفيهية نفسها . وكلا الإتجاهين يمثلان المدخل الوصفى Descriptive Approach . بينما نجد أن الإتجاه الثالث يتجاوز المدخل الوصفى ليختص بتحليل